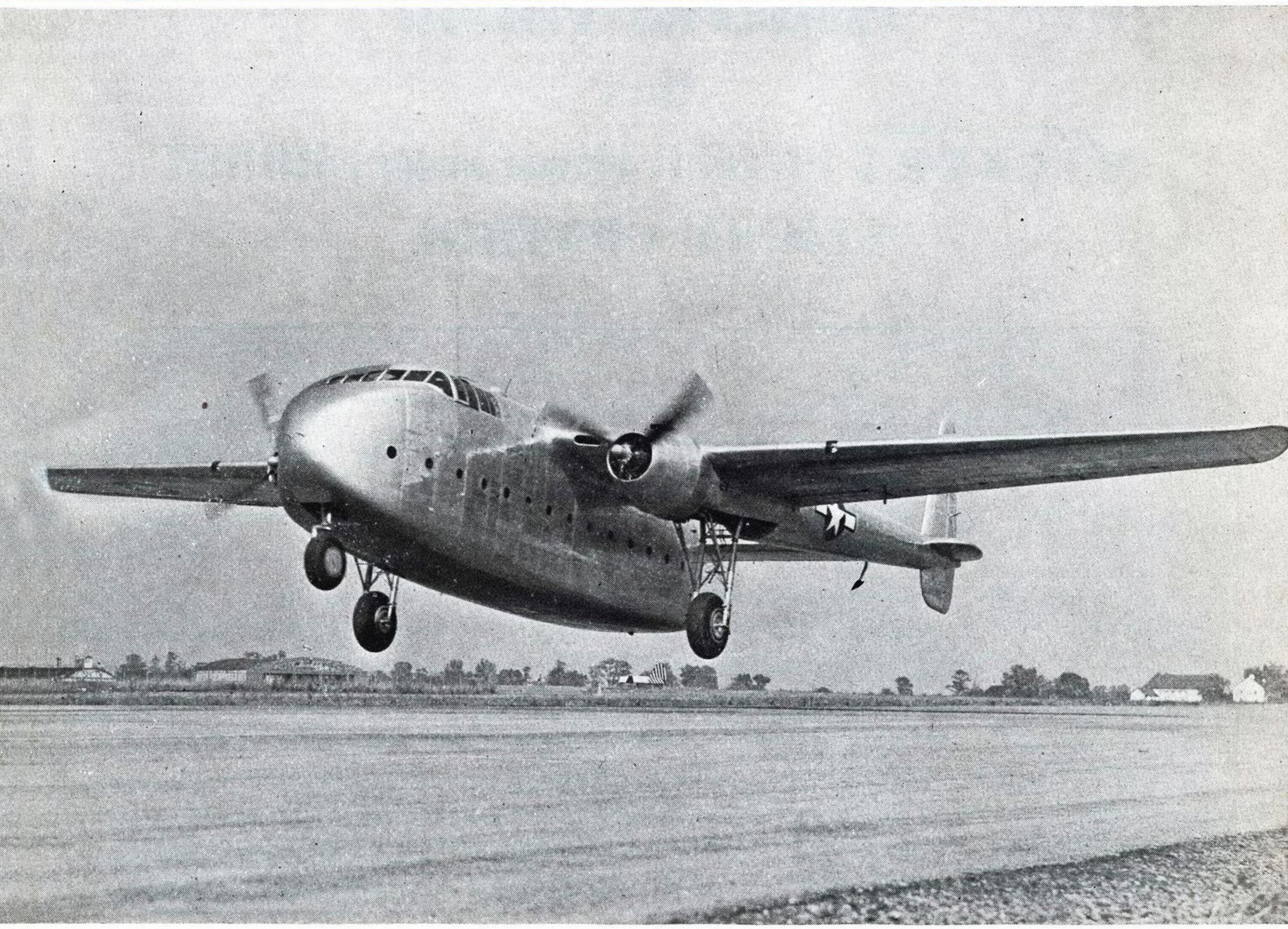
Aviation News

McGRAW-HILL PUBLISHING COMPANY, INC. OCTOBER 30, 1944



New Fairchild Military Cargo Plane: *First flight picture of Fairchild's C-82* Packet, *powered by two Pratt & Whitney 18 cylinder R-2800-22 engines with a takeoff horsepower of 2,100 each. The plane has a range in excess of 3,500 miles and is in the 50,000 pound class.*

THE AVIATION NEWS

Washington Observer

CHICAGO CONFERENCE—The high significance of the International Aviation Conference opening in Chicago this week has been overlooked by some elements of the aviation industry. Actually, the conference is part of the peace conferences which will follow. The Chicago meetings are to aviation what Dumbarton Oaks was to the world security phase of post-war international planning and what Bretton Woods was to a start on international financial planning. High officials in Washington attach great importance to the sessions and the results will have far-reaching affect on the aviation industry generally.

★

LITTLE PUBLICIZED—There have been expressions of surprise in some official circles over lack of publicity given to the Chicago conference in the daily press in view of its significance. It is not overlooked, of course, that the election campaign, spectacular action in the Pacific and moves in Europe naturally overshadow the meeting. At the same time, what is said and done at Chicago probably will have permanent affect on our post-war life in the view of informed persons in the Capital.

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AIRLINE ADVERTISING—The two-month controversey between Office of Defense Transportation and the airlines over airline advertising has been referred to L. Welch Pogue, chairman of CAB. ODT Director Johnson commented in passing the matter on to Pogue that apparently his objections to airline advertising encouraged rather than deterred travel, were not understood at the Air Transport Association. Next step apparently is up to the CAB.

★ ★ ★

FOREIGN SURPLUS DISPOSAL—Foreign Economic Administration is hurriedly building up an organization to dispose of surplus materials abroad. Chief obstacle facing the agency is said to be the absence of a central inventory and the probability that not until the war is over is it likely to have one. Airfields, hangars and even aircraft will be among items FEA will handle.

★ ★ ★

AIRCRAFT WAR PRODUCTION COUNCIL—The threatened demise of the National Aircraft War Production Council has been postponed, many members believing it would be a serious mistake to close the office, despite the fact that aircraft production is well in hand and continues to meet demands of the armed services. The unit output for October is expected to equal and perhaps beat the September production of 7,598 airplanes.

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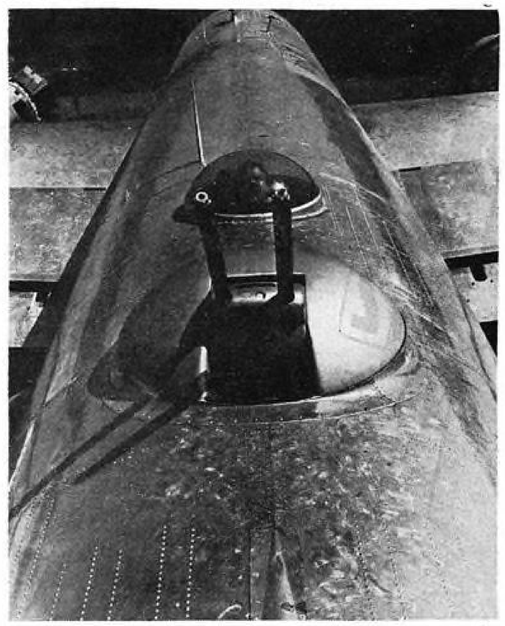
CIVIL PILOT TRAINING—Definite planning for resumption of civil pilot training under CAA is now under way. Resumption of CPTP is regarded as an essential step for development of a large private owner field and a program is now being outlined with estimates of costs. The newly created Aviation Training Service of CAA will include the CPTP in its scope.



B-29's top-rear twin-50 turret.

ARNOLD REPORT ON THE WAY—AAF public relations and intelligence officers have been alerted on General Arnold's annual report to the Secretary of War which is being awaited by the industry since last year the report was loaded with new material which has not been disclosed by the Air Forces and consequently was on industry's restricted list. There is some speculation that electrical and radio controlled devices long on the secret list may be discussed and clarified.

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RAILROAD'S STRATEGY—Any open campaign by the railroads to get into air transportation is still considered unlikely to observers on Capitol Hill where the impression is being given by rail interests that they want only the

AVIATION NEWS

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"right" to operate airlines. They are expected to continue efforts to influence other groups—indirectly—such as state officials and smaller companies seeking feeder routes. The railroads are most interested at this time, however, in obstructionist tactics to prevent as much aviation progress as possible, and put this even ahead of their promotion of an "integrated" transportation system. It is notable that both the present vice-president of the United States and Harry Truman, the Democratic nominee for the same office are dead set against "integration."

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Industry Observer

▶Air Cargo, Inc., the research corporation established and financed by the airlines to study potential cargo business and problems, will be dissolved soon. United has served notice it will contribute no more funds after Dec. 31. . . . Tom Beck has resigned as chairman of the board of the stormy Civil Air Patrol League. Successor may not be named for several weeks.

▶A midwest manufacturer of high speed aircraft will have a new twin-engined model ready soon, possibly faster and with a longer range than the Douglas A-26. . . . Bendix Aviation Corp., whether it enters the lightplane producing field or not, is going ahead with development of new instruments and lightweight equipment for personal aircraft.

▶Reports that Ford may enter the personal plane field are still heard but company officials won't talk. Before the war, Henry Ford said he expected to make an airplane some day small enough to take off and land in the owner's back yard, an indication of possible interest in helicopters.

▶British Embassy spokesmen say England has no research or production program under way on the helicopter or other rotary wing aircraft. . . . Bureau of Aeronautics' Admiral Ramsey has described "two highly important experimental projects" in the helicopter field as those of the P. V. Engineering Forum, previously publicized, and of McDonnell Aircraft Corp. Mention of the latter ship had been censored previously.

▶Several major airlines urge that a research study be made for the industry on relationship between owners and operators of airports and the airport users, to enable establishment of operating standards. One proposal would send a staff to a typical large airport for exhaustive statistical study.

▶Douglas has two sets of specifications for bird-proof windshields for the DC-3, requested by the airlines. One would provide protection from a 15-pound bird up to 200 mph, and the other a four-pounder up to 300 mph. Either would add 40 pounds to an airliner.

▶Aircraft industry through the Chamber as early as last June offered Secretary Hull its cooperation in submitting its recommendations on technical and airworthiness standards likely to come up at the coming international air conference but the only reply was a note of thanks from an assistant. CAA has prepared a sample set of standards, by State Department order, but these are not entirely acceptable to industry.

▶A tentative contract between KLM Royal Dutch Air Lines and Lockheed for *Constellations* is reported en route to main KLM offices in England for ratification. This is the first indication of KLM plans to replace its DC-3 fleet, much of which was lost to the enemy early in the war.

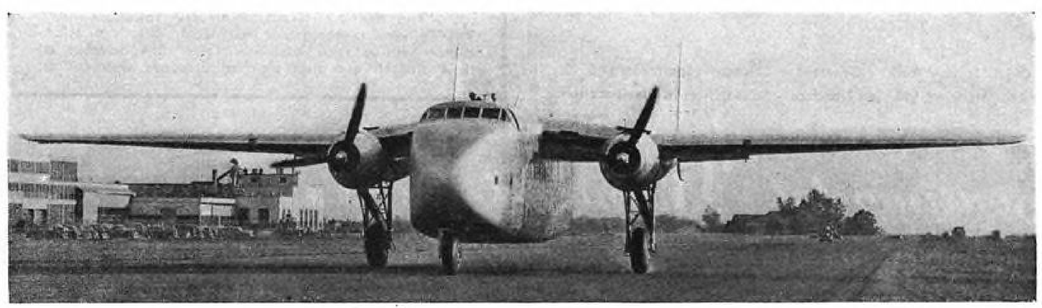
▶Menasco Mfg. Co. is interested in developing an inexpensive conventional engine for postwar, as well as another line of unconventional design requested by another company. Menasco says it is not a subsidiary of Lockheed. Robert E. Gross and Cyril Chappellett, Lockheed president and vice president, are on the Menasco board.

▶*Skyways* is readying a new publication, *Airways,* to be given free to airline passengers as they land at major cities. Each Airline will have its own edition for each city, prepared by regional writers for the magazine, listing hotels, amusements and other services.

▶California Institute of Technology admitted war industry production status last week with half-page newspaper ads for workers in its war rocket factory. . . . Cal Tech is credited with basic research on the rocket project.

▶Talk of building the Rolls-Royce Griffon engine in the United States has subsided. Packard was interested in the project but thus far no contracts have been signed and the AAF is reported to see no need for the project at this time.

Fairchild's new military cargo plane, the C-82 Packet.



VOLUME 2 • NUMBER 14 **Aviation News** October 30, 1944

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Delegates Arriving in Chicago For World Air Parley This Week

Representatives of over 50 countries to meet in effort to work out pattern for cooperation in development of international air transportation.

Delegates of more than 50 countries are assembling in Chicago this week to see whether they can devise a mutually acceptable program to make international air transport a force for intensive, rapid development of trade among nations and preservation of peace.

Assistant Secretary of State Adolf A. Berle, Jr., chairman of the American delegation and temporary conference chairman, will deliver a welcoming address at a plenary meeting Wednesday afternoon in the Stevens Hotel, site of the conference sessions.

Thursday, Berle again will address the delegates, and presumably will be elected permanent chairman. He is expected in both speeches to emphasize the need for earliest resumption and expansion of international air transport, with minimum restrictions.

▸**Vital to World Air Trade**—This conference constitutes the air section of the peace settlement. The future of world trade in the air may well be at stake. The issue is: Shall the skies be open to commercial aircraft in peaceful flight on an equitable basis for airlines of all interested countries or shall portions thereof be closed to some airlines through the machinations of any nations which might seek special privilege?

After several days of preliminaries in which the various delegates supposedly will have opportunity to air their views in general sessions, the conference will break down into committees to consider the comprehensive agenda offered by the State Department.

▸**Some Sessions Open to Press** — The Department has promised the public full information on the proceedings, with as many sessions as possible open to the press.

Before it is finished, the conference will have to reconcile the conflicting views of delegates of virtually all the air-minded nations.

The United States proposes a multilateral granting of commercial landing rights on a nondiscriminatory basis. It opposes any type of international air authority except a technical one with powers to recommend appropriate measures to participating governments.

▸**British Program** — The United Kingdom favors a rigid control over air transport to be exercised by an aeronautical body which would have power to certificate airlines, tell them where they might fly, how often, and what portion of total traffic they might carry.

New Zealand and Australia propose that the conference agree to international ownership and operation of global airlines and trunk routes. Delegation Chairman Daniel G. Sullivan of the War Cabinet reiterated in Washington last week that both New Zealand and Australia had not receded from this position taken at Canberra many months ago, but he acknowledged there is opposition to the proposal and expressed confidence the conference ultimately would reach compromise solutions insuring availability of international air services to all people.

Canada has offered a draft agreement with variations on the U. K., New Zealand and Australian themes.

▸**China and Russia**—China and Russia are expected to side with the United States on the question of international control. U. S. officials hope also that they will have the support of Latin American countries.

Egypt, along with Iceland which will be represented by Minister Thor Thors, will be observed closely at the conference, because of the great importance of both countries to future American air ambitions.

▸**Argentina Not Represented**—On the other hand, Argentina, which does not figure importantly in global air patterns, will not be represented because the Farrell government is not recognized by the United States. Britain, which likewise withholds recognition, was reported anxious to have Argentina represented.

It was pointed out here that Britain is beginning a drive for post-war trade in Latin America

READY-TO-FLY P-38 GOES ASHORE AT OUTLYING BASE: *Two "ducks," lashed together to form a catamaran, transport a P-38 fighter plane from ship to shore. This method of unloading makes it possible to ship fully assembled planes for delivery to airports ready to fly.*

which probably would begin with Argentina, Paraguay and Uruguay. For this reason, in fact, the entire Latin American contingent will be observed closely to see to what extent the probability of post-war trade returning to its prewar ties with Europe will affect decisions on international air policy.

The business of the conference, according to the American plan, will be divided into four parts: "Provisional" world air routes, technical controls, the international aeronautical body and formation of an interim council to continue the unfinished work of the conference. The conference is expected to last at least three weeks.

▸**New Air Convention**—One of the main tasks will be the opening of work on a new International Air Convention to replace those of Paris (1919) and Havana (1928). It is generally agreed that these two conventions are so ambiguous in their meanings that they have impeded the advancement of air transport.

▸**Japan and Germany**—Moreover, political consideration prevented the opening of many air routes in the past. China kept out all airlines for a long time out of fear of Japanese incursions. The United States gave Australia the same treatment for the same reason. Thus, the air powers have decided to keep Japan and Germany on the ground and hope thereby to avert in large part political barriers to opening of air routes.

New Hellcat in Action

Disclosure was made by Grumman last week that its new Navy fighter, the F6F-5, a faster, improved *Hellcat* is in action in both the European and Pacific theaters. Details are still restricted, but the plane has an improved engine cowling and a mirror-smooth finish which gives it greater speed than its predecessor, which was in the 400 mph.-plus class. The F6F-5 is also reported to have greater maneuverability, improved visibility, higher diving speed and more protection for the pilot. The new model has an outstanding combat record.

AVIATION CALENDAR

Nov. 9-10—Fall Meeting, Institute of Aeronautical Sciences, Dayton, O.
Nov. 13-14—National Association of State Aviation Officials, Annual Meeting, Oklahoma City.
Nov. 15-18—National Clinic of Domestic Aviation Planning, Oklahoma City.
Nov. 16-17. SAE Air Transport Engineering Meeting, Hotel Continental, Kansas City, Mo.
Dec. 4-5—SAE National Air Cargo Meeting, Chicago.
Dec. 5-7—Second Annual Meeting, Aviation Distributors and Manufacturers Association, Jefferson Hotel, St. Louis, Mo.
Dec. 6-7—National Aviation Trades Association, Annual Convention, Jefferson Hotel, St. Louis, Mo.
Dec. 13—Canadian Aircraft Traffic Managers Meeting, Montreal.
Dec. 17—Wright Brothers lecture, Institute of Aeronautical Sciences, Washington.
Jan. 8-12—SAE Annual Meeting and engineering display, Book-Cadillac Hotel, Detroit.
Jan. 30-Feb. 1—13th Annual Meeting, Institute of Aeronautical Sciences, New York.

Joint Port Service Plan Takes Shape

Corporation owned by airlines to assume some of various operations at airfields, under program proposed.

Formation of a corporation jointly owned by all the airlines to provide facilities and service at airports has passed the discussion stage, with definite proposals put forth to solve the muddled situation existing at some terminals.

The suggested organization, Airlines Service Corp., would take over some of the existing joint operations and at the start would restrict its activities to an area bounded by Chicago, Boston, Richmond and St. Louis. If the experiment were successful, the corporation would extend its scope, or other regional corporations would be set-up.

▸**Hold Equal Amounts of Stock**—Participating airlines would hold equal amounts of stock. Stockholders would elect the board of directors which, although small in number, is contemplated to include representatives of large and small domestic lines, and international operators. Top executive would be a general manager with headquarters in a centrally-located city—perhaps Cleveland or Pittsburgh for the Northeastern region proposed as the testing ground.

The corporation would operate at an airport under contract with the airlines using that field. Representatives of those lines would form a committee to consult with and advise the corporation's local manager, but it is believed the local manager would have independent authority.

▸**Duplicate Services**—The corporation's broad purpose would be to eliminate, as far as possible, such situations as now exist at Washington where porter service and ramp service are provided by two unrelated bodies and tickets are sold at two offices not responsible to airlines, at New York where there is duplication of management of some facilities, at Chicago where United Air Lines handles the air mail field post office, PCA air conditioning service and where other services are jointly owned.

Some of the facilities and services which could be made available or rendered by the Airlines Service Corp. are: air mail field post office; airport air express office; intercompany communication; public address systems and information offices; airplane service pits; ticket offices, pay telephones; ground transportation; baggage handling; cargo loading and unloading; ramp service.

▸**Contracts** — In some cases, the corporation would enter into a contract for an airline to perform one of the services. For instance, the airmail post office at Chicago could continue under the management of United, but the airline would be responsible for the conduct of the office to the service corporation. Another latitude contemplated would be that all airlines at a particular field would not have to use the corporation's facilities. Ramp operations, for example, could be carried on with its own equipment by the airline having the greatest frequency at any field, with the other users of the field utilizing the corporation's equipment.

The service corporation would own necessary equipment and charge the contracting airlines for depreciation and other direct expenses. Funds necessary for purchasing equipment would be borrowed from airlines served, with retirement being made by collections for service performed. The corporation likely would be a non-profit body, any balances from concessions probably being distributed among stockholders.

Among the first terminals to be given consideration, should the plan be adopted, is Washington, with LaGuardia Field perhaps second on the list.

Navy Order to Ryan

Ryan Aeronautical Co. announced last week possession of orders exceeding $58,000,000 for a "faster and improved" Navy fighter, the Navy's first authorization of a company announcement, indicating tactical importance of the airplane.

While details of the Ryan plane are prohibited by security restrictions, its value to the fleet air arm was described in a "stay on the job" message to Ryan workers from Rear Admiral DeWitt Ramsay.

WPB Reconversion Machinery Ready to Start Work on V-E Day

Reorganized board prepared to launch program as soon as Allied military forces have eliminated Germany from war.

Planning for reconversion has come to a dead standstill in Washington. All has been done that can be done pending military developments.

In general, the machinery for reconversion is now in place, having been theoretically completed with the creation of the Office of Demobilization and Reconversion. The reorganization by Chairman J. A. Krug of the top layer of War Production Board authority is now finished, and WPB is ready to launch its V-E Day reconversion plan as soon as Germany is withdrawn from the war.

▸**Starts With V-E Day**—If the war in Europe ends this fall or during the early winter, reconversion will start immediately. The plans for V-E Day which have been drawn up and refined by WPB will be carried out. If the German drive bogs down, however, and the Allied armies are immobilized throughout the winter on the Western front, the status of reconversion will remain exactly what it is today.

Meanwhile, considerable alarm is arising in WPB over the steady parade moving out of the agency. What a few months ago mounted to a trickle of resignations has now grown into a flood, and top officials are worried. Week before last there were 150 quits. By last week it had jumped to 240. The problem of how to hold WPB employees has quickly worked its way up to Chairman Krug who is now trying to devise some means of keeping his staff intact.

▸**Full Staff Needed**—Chief reason for Krug's alarm over the accelerated quit rate is the fact that, when Germany folds, WPB will need to be fully staffed in order to carry out the V-E Day reconversion plan. The WPB chairman is realistic enough to recognize the fact that if workers are quitting now, it will be infinitely more difficult to recruit new ones after an armistice with Germany has been signed.

Another reason why WPB is extremely anxious to keep its employees is that several new divisions will be established, such as the projected Aircraft Division, and these will have to be staffed. The new Construction Bureau, likewise, will find need for additional workers as its operations expand with removal of controls.

Between now and V-E Day, WPB will promote its "spot authorization" plan for resumption of civilian production but very little consumer goods is expected to return to the market as a result of these operations. Too many manufacturers cannot qualify, especially the larger ones, and all of them realize that it is strictly a temporary and substitute reconversion plan which will be tossed aside overnight on Germany's defeat.

▸**Measure May Be Reopened** — When the new Congress convenes in January, there is considerable liklihood that the Demobilization and Reconversion Act of 1944 will be reopened. Few reconversion planners were satisfied with the measure, and when it was sent to the White House, President Roosevelt signed it reluctantly, remarking that it did not go far enough. Regardless of whether the new Congress is Republican or Democratic, the controversial subject is likely to be brought up again, chiefly for amendments to its "human demobilization" provisions.

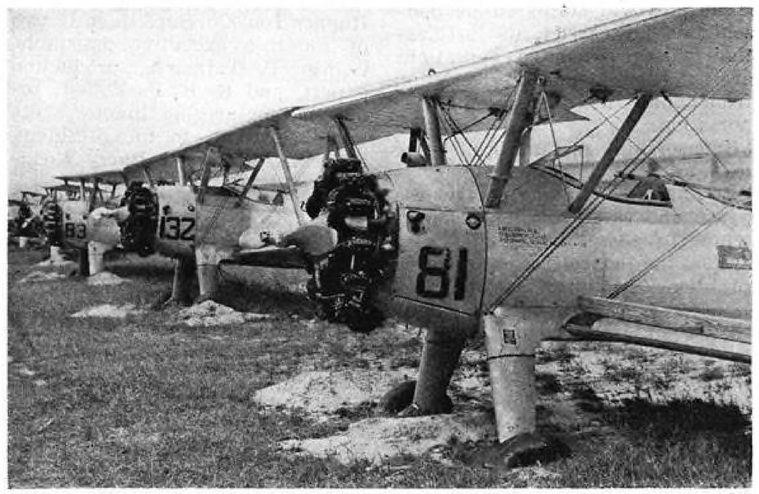
Current reconversion status can be summarized as follows: if Germany collapses soon, war contracts will be cut back drastically; restrictive orders will be removed in wholesale quantities; CMP will be abandoned, and in general, industry will get a green light. If Germany holds out through the winter, there will be little change in the situation that exists today.

Milo Burcham Killed

One of aviation's best known test pilots, Milo Burcham, Lockheed chief of flight, was killed recently in the crash of a fighter in a test flight at Burbank, Calif.

Burcham is credited with developing and personally applying many flight test procedures which have materially advanced prototype and production flight testing, and had an important part in early work cooperating with the Mayo Clinic in assembling data on the effects of high altitude on flyers.

▸**Stunt Pilot**—After a stunt pilot career in which he gained wide fame for his upside-down flights, Burcham joined Lockheed in 1937 as a ferry pilot, soon was assigned as chief of pilots testing the Lockheed XP-38. More recently he directed flight tests on the four-engined *Constellation*, and rode with the late Eddie Allen on the initial test flight of the transport plane. Prior to his appointment as chief of flight, early this year, he had held the post of chief engineering test pilot.



FOXHOLES BRACE TRAINERS AGAINST STORM:
Digging "foxholes" to bury the wheels of 150 Boeing Kaydet *training planes, and placing 2x4 spoilers on the wings to break the airflow, prevented all but minor damage to the planes at Lodwick School of Aeronautics, Lakeland, Fla., during the recent hurricane in which winds above 90 mph. were reported at the school. The school trains cadets of the 2160th AAF Base unit, commanded by Col. C. E. Flaherty.*

WEST COAST REPORT

Asks Local C. of C.'s To Back Port Plans

Eastburn lists responsibility of groups in sponsoring aviation in community.

By SCHOLER BANGS

Local Chamber of Commerce reflection of localized trends and influences, good and bad in the advancement of air commerce, warrants continuous attention on the party of aviation industry leaders who found much of importance in an address given in Kansas City by Glen B. Eastburn, manager of Los Angeles Chamber of Commerce transportation department and vice-president of National Aeronautical Association.

He gave his views on Chamber of Commerce responsibility to aviation to the National Association of Commercial Organization Secretaries. It is his view that Chambers of Commerce should consider:

- The supply of factual material to the Civil Aeronautics Board to aid CAB in determination of "public convenience and necessity."
- Exploration of the possibility of interesting private capital in the financing of air terminals and airparks through a showing of their profit making aspects.
- The post-war status of the nonschedule air carrier, its justification where scheduled operations are not feasible, and its restriction from conflict with scheduled transportation.
- Sponsorship of uniform state laws affecting intrastate flying.
- Zoning legislation to protect the peace and safety of persons over whose property aircraft fly.

For the consideration of such problems, Eastburn urges the creation of Chamber aviation committees, their existence to be limited to the period of the aviation industry's development stage.

His expressed belief that air transportation companies will own, individually and cooperatively, their own terminals within a few years or regret that they do not own them reflects his allied belief that aviation will reach its greatest potential as a contributor to civilization under a free enterprise system.

To West Coast observers, Eastburn's speech was heartening as an indication that one of the nation's biggest local Chambers, one that has been criticized on occasion for having failed to give all out support to Los Angeles' biggest industry, will adopt a strong air commerce program.

Opposing Factors — However, these same observers are not overconfident, since they reason that Chambers generally are influenced both directly and in many indirect ways by surface transportation forces that will work to nullify progressive aviation programs if surface carriers ultimately are excluded from participation in air commerce.

Flying Wing—Northrop Aircraft reports work on the Flying Wing is "going forward at full speed."

First public announcement of the status of the *Flying Wing* since the company was placed under total restriction against discussion of the project was contained in the company's annual report to the stockholders. The financial statement showed the company's net sales for the 1944 fiscal year to be $88,045,089 and a gain in net working capital amounting to $1,989,058 for the year ending July 31.

Convair Reshuffle—Resignation of Ed N. Gott, veteran top executive of Consolidated Vultee, has been attended by an upper bracket reshuffling of the company's administrative responsibilities.

The changes began with the resignation of C. N. Perelle, vice-president in charge of manufacturing and board member to join Hughes Tool Co. Subsequently two of Perelle's executive assistants, George P. Tidmarsh, production expert, and R. B. Parkhurst, industrial engineering director, were made assistants to the president, reporting directly to Harry Woodhead.

The move, evidently to spread administrative responsibility, raised Woodhead's immediate assistants to five.

New Aviation Courses

Of 455 American colleges and universities polled, 307 are planning post-war aviation courses, a survey made by Bendix Aviation Corp., has disclosed. Bendix President Ernest R. Breech reports that the 307 schools and others which have expressed interest in such courses, will need substantial quantities of usable government-owned aircraft equipment which can be made available to them for educational purposes under the Surplus Disposal law.

Breech, who heads the Aeronautical Chamber of Commerce surplus disposal committee, said the survey showed 95 colleges which do not now teach aeronautics are planning post-war courses, and 212 now teaching expect to continue or expand their aviation curricula. He urged educational institutions to take advantage of the opportunity to obtain educational equipment through the surplus disposal law.

No Final Agreements At Montreal Talks

The British Commonwealth air conference attended by eight British nations met at Montreal for "an exploratory and informal exchange of views," and "nothing said or discussed has any final or government approval," H. J. Symington, head of the Canadian delegation and chairman of the conference stated at the opening and only public session at the Windsor Hotel, Montreal, last week.

The delegates of Great Britain, Canada, Australia, New Zealand, South Africa, Newfoundland, India and Southern Rhodesia, 43 in number, met for technical discussions on post-war international air routes within the British Commonwealth. Chairman Symington made it clear that "we do not intend to take a position which might prejudice accomplishment in the larger field of complete international authority. . . . Whatever may be agreed upon here must take its place within the framework of whatever organization may be established at the forthcoming international conference on civil aviation. . . . For example, a Commonwealth route from Great Britain to Australia, New Zealand or India, could only be set up by obtaining transit and landing rights in foreign countries. If we achieve these rights under an international convention, then we can make our arrangements. If we do not get them by international convention the picture may be very different."

Cooperation Main Objective—Sir Arthur Street, permanent Under-Secretary of State in the British Air Ministry, and head of the United Kingdom delegation, said that Great Britain had only one objective in entering the Montreal conversations, the most complete co-operation with other nations of the Commonwealth in aviation.

Because the delegates also will attend the Chicago conference, the Montreal meetings were planned to be over by Friday. As they were on a technical basis, only technical delegates to the international conference for these British nations, attended and were urged "to speak our minds openly and to achieve among ourselves a large measure of understanding."

The Canadian delegation is the largest, with 13 members including seven technical advisers. The United Kingdom delegation consists of 11 members, five of whom are technical advisers. Australia and New Zealand each have four members, South Africa has five, Newfoundland three, India two, and Southern Rhodesia has one delegate to the conference.

DPC, FEA Offer 800 Transport Planes

Virtually all of craft must be modified to meet CAA certification requirements.

More than 800 small transport planes or larger converted bombers are being offered for allocation sale by Defense Plant Corp. and Foreign Economic Administration. Almost all must be modified to meet CAA certification requirements or have not yet been tested by CAA.

Largest number available are Curtiss AT-9, small two-place, twin-engine planes. They are now being tested for certification by CAA. Some 265 are available. They are powered with Lycoming 300 hp. engines, are of low-ing, all metal construction with gross weight of approximately 5,600 pounds.

Cessna AT-17's Offered — One hundred twenty-three Cessna AT-17's are listed. This is another small, twin-engine job, similar to the UC-78, which has been tested by CAA and found ineligible for certification without modifications that are now being engineered by Cessna.

Ninety-three Beechcraft AT-10's—low-wing, wooden structure two-place plane powered with two Lycoming 285 hp. engines also listed. Pilot's compartment is of metal construction. CAA has not yet tested this ship, which has been used by Army for transitional training and carries full training instrument complement.

Lockheeds—Ten Lockheed AT-18's, similar to the Hudson, not yet tested by CAA are offered. Powered by two Wright 1,200 hp. engines, probably convertible for commercial use, carrying up to 12 passengers.

There are also eight Lockheed RA-28 and RA-29 planes similar to the AT-18. These are not CAA tested so far.

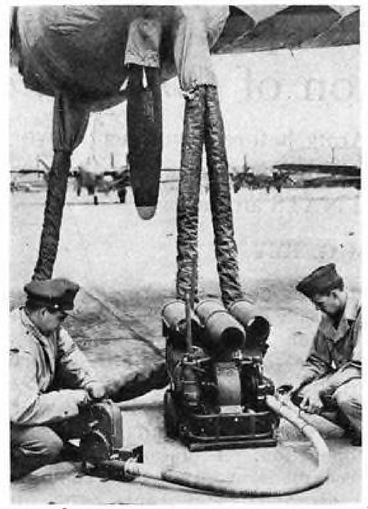
Sixteen of the Federal Avro Anson AT-20 series, manufactured in Canada, are on the list. They will have to be CAA tested and approved. These AT-20's are low-wing, powered by two Jacobs 330 hp. engines, with plywood covered wings and steel tube fuselage.

Five Douglas conversions from the B-23 to UC-67 are available. This plane was built as a bomber, has not been CAA certificated, has a mid-wing construction that restricts fuselage size. Fuselage itself is narrow and has a low roof.

Douglas RB-18's—There are also 26 of the older Douglas RB-18 bombers, also of mid-wing construction, narrow fuselage and low roof. This plane has never been certificated. It has been used as a patrol bomber and for small cargo-passenger transport.

Two hundred six Cessna UC-78 planes are available. These have been tested and ruled ineligible for certification without modification by CAA. Modifications are being engineered. It is a fabric-covered low-wing monoplane, with seating capacity of from two to five depending on equipment installed and modification of wings and is powered by two Jacobs 245 hp. engines.

Sixty-seven Vega *Ventura* RB-34 (R-37) ships are listed. These resemble the Lockheed *Hudson* but are larger and powered with two Pratt & Whitney 2,000 hp. engines. They are bomber-built, but could be converted to passenger or cargo transport, carrying possibly 14 persons. CAA does not list them as tested for civilian use.



HEATING THE HEATER:

A small manually-operated heater has been developed by the Air Technical Service Command to heat up the big heater which in turn warms the aircraft engines. The small heater was developed for use where Arctic weather is so cold the large ground heater freezes.

U. S. Collaboration On Engines Urged

Technical cooperation on power plant design and purchase proposed at Washington meeting of company engineers and officials.

An important move toward government-industry collaboration of technical requirements for designing and buying engines was made at a meeting in Washington last week of chief engineers and vice-presidents of the country's aircraft engine companies with policy-determining military officials.

The technicians, members of the Engine Technical Committee of the Aeronautical Chamber of Commerce, and top officials discussed problems concerning technical aspects of military engine procurement and need for consultation on plans and specifications before they are made mandatory.

Joint Meetings—Emphasis was laid on advantages which would accrue from having high-ranking representatives of both industry and government at meetings so that it would be possible to arrive at a conclusive agreement on engineering policy matters.

The agenda featured measures for clarification and interpretation of military service policies governing the design, procurement and development of aircraft engines; determination of contractors' responsibility under varying provisions of changing technical requirements; and importance of eliminating separate service requirements wherever possible.

James P. Murray, Boeing vice-president and president of the Aeronautical Chamber expressed industry appreciation for continuing cooperation extended by the services. J. H. Sidebottom, secretary of the ACCA Engine Technical Committee, acted as spokesman for the aircraft engine industry.

C-W Displays Mock-up of CW-20E, Commercial Version of *Commando*

Craft, put in operation by Army before experimental work was completed, is said to embody experience and thorough "shakedown test" of ATS and NATS airlines.

By WILLIAM G. KEY

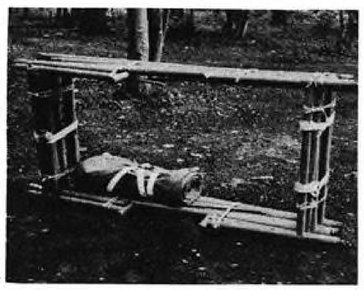
Commercial version of the Curtiss *Commando*, first in a series in Curtiss-Wright's bid for the post-war transport and cargo market, was shown to the press in mock-up form at the St. Louis, Mo., plant last week.

Originally engineered as a commercial airliner, the *Commando* was ordered in contract quantities by the Army before the experimental model was completed and was flying the ocean non-stop before even the manufacturer knew what the plane could do. Since that time, it has been produced in thousands.

▸ **CW-20E**—The commercial version—the CW-20E—is the end result of the experience with the C-46 (Navy R5C) during the three years of the war, the commercial engineering done when the original model was designed, and the mass-traffic experience of the airlines during the war projected into post-war needs.

Among the changes from the original model are a re-designed recessed nose providing greater visibility and improved de-icing for bad weather operation; more powerful engines and improved flight control.

▸ **New Nose**—The new nose of the *Commando* gives the pilot greater range of vision, with double-pane, "birdproof" safety glass and de-fogging nozzles incorporated to insure clear vision. The hinged nose section gives maintenance crews access to the back of the instrument panel. The cockpit arrangement groups all controls forward of the pilots in units for ease of operation. Illumination in the cockpit is provided by a combination of incandescent light and "black light" of controllable intensity.



'CHUTE PACKING TABLE:

This ingenious parachute packing table opens from a compact six feet to a 40-foot long working surface. It was constructed from steel tubes from a wrecked glider by a Ninth Air Force mobile unit.

Control is improved through substitution of aerodynamic balance and spring tabs on ailerons, rudder and elevators for hydraulic boost power. All control surfaces are of metal construction in contrast to the usual fabric-covered units. Airline pilots who have handled the ship with the improved controls term the plane remarkably easy to handle in the air. The wingspread of the commercial version is 108 feet, over-all length 76.31 feet and height 21.7 feet, identical with the military model.

▸ **Power Plant**—The CW-20E will be powered with two Wright Cyclone 18-cylinder (C18-B2) engines with Curtiss electric three-blade, quick-feathering, constant speed propellers. Equipped with the Wright Cyclones, the CW-20E will have a normal takeoff gross weight of 48,000 pounds, a design useful load of 15,900 pounds and a maximum cruising speed of 242 mph. at 10,000 feet.

The *Commando* is engineered primarily for medium range commercial operation, although it has a maximum range of 1,520 miles.

In the mock-up version, provision is made for 36 passengers in twin reclining seats on both sides of the center aisle. Overhead racks are provided for small luggage, while space is provided on a small ledge at the bottom of the window frames for small personal articles such as handbags. The galley is built in forward of the passenger compartment, with entry through a Dutch door that doubles as a serving pantry. Included are the usual thermos units, a Dutch oven, grill hot plates, toaster, mixer and baby bottle warmer. A separate counter is built in for a snack bar. A men's room and a ladies' powder room are built aft.

▸ **Lift-Type Door** — Entry is through a lift-type door in the usual position, with a partition shutting off draft from the passenger compartment. Opposite the entry is a hostess station with seat, control panel for opeating cabin lights, hot water heaters and the ventilating system, a telephone for communication with the galley and pilots' compartment, and a desk for making out flight reports, etc.

Lighting is furnished by a single, indirect fluorescent lighting fixture running the length of the ceiling panel and by individual reading lights. The ceiling panel also houses the air-exhaust section of the ventilating system, which completely changes the cabin air once each minute.

▸ **Cargo Compartments**—Two large cargo compartments are built into the lower section of the plane, providing 526 cubic feet of space for luggage, mail, express and other shipments. Both are easily accessible for loading from the ground.

As many as 42 passengers can be accommodated by altering interior arrangements.

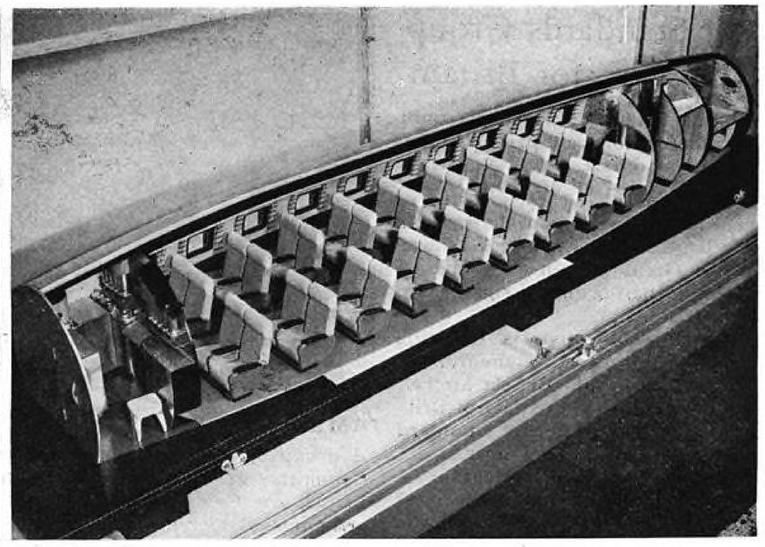
The manufacturers' weight empty is 32,100 pounds, the maximum gross landing weight 46,400 pounds and maximum payload 12,430 pounds. Wing area is 1,560 square feet.

▸ **Aided Malta Defense**—Designer of the original plane was George A. Page, Jr., now director of engineering for the Airplane Division of Curtiss-Wright. The prototype was assigned to the British Air Ministry and is still in use. It has one of the war's most remarkable records, being credited with saving Malta in one of the crucial hours of that beleaguered isle.

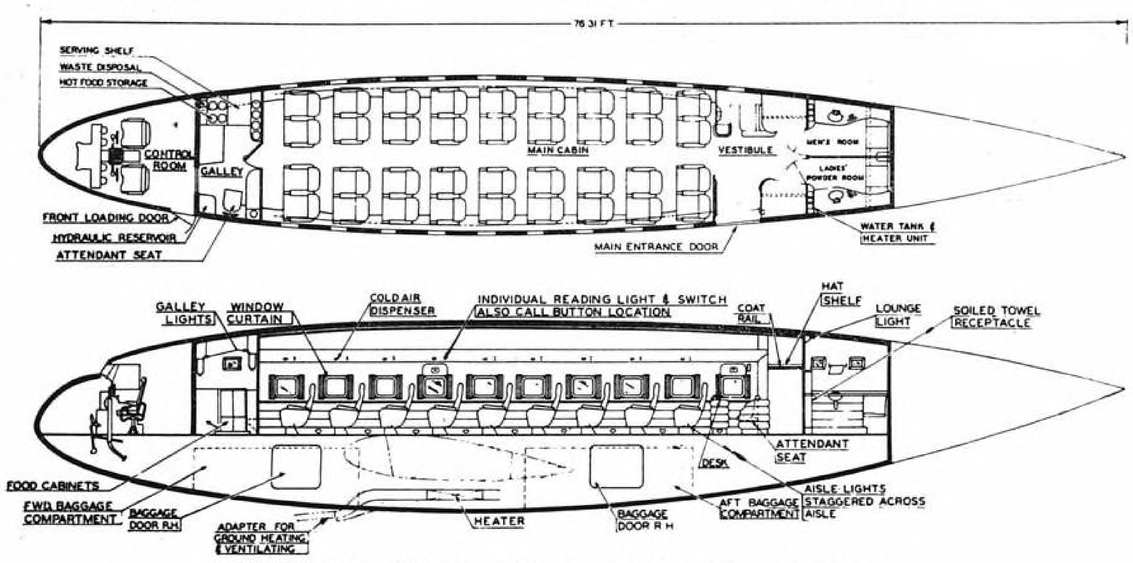
Thirty of the ships were flown non-stop across the Atlantic when the conquest of Burma made it necessary to improvise an aerial Burma Road. They went over even before the plane had been thoroughly tested on this side of the ocean, operating in Burma and over the Hump into China under conditions never before encountered in regular flying operations.

Curtiss-Wright engineers are credited with devising means of defeating fuel system vapor locks creating havoc with all types of planes in that operation. Additional *Commandos* were sent to that theater and are credited with ferrying 75 percent of the vital material flown into China.

Hinged nose cone on Curtiss CW-20E gives quick access to back of instrument panel.



Cutaway model shows interior arrangement, with galley forward, passenger compartment, entry lavatories.



Sectional drawings show floor plan, cross-sections of fuselage.

Retouched photo shows how Commando *will look in post-war passenger service.*

Air Standards Group To Leave for Britain

Technicians seek to effect unification of aircraft parts practices and materials.

A group of technicians representing aircraft manufacturers in the United States will leave shortly for Great Britain on a mission of more than ordinary significance to the industry.

Primary objective is to bring about uniformity of standards for the American and British aircraft industries through a study of British industrial aircraft standard parts, practices and materials.

▸**World Standards Program** — Members of the mission are confident an international standards program such as the one projected will effect substantial savings to the manufacturing industries and aircraft operators of both nations. It is expected that in addition to the economies effected through standardization, cooperation between the two countries will expedite conversion to civilian production and facilitate post-war international airline operations.

The group, representing the National Aircraft Standards Committee and the Society of Automotive Engineers, is returning a visit made to the United States by a British technical mission in May, last year. The mission has been organized and will be conducted under the direction of Flight Lieut. D. G. Moffitt, RAF, of the British Air Commission.

He expressed the belief that the mission can achieve substantial progress toward a goal of uniformity in international industrial aircraft standards which, if obtained, would be a significant development in aircraft manufacturing and of vital importance to aviation generally.

▸**Study British Plan**—The United States mission will study the British standards program at first hand and seek a thorough understanding of their standards and applications. Since all members have an intimate knowledge of United States standards, they will be able to make on-the-ground comparisons toward a common goal. Once achieved, this will enable the industries of the two nations to harmonize their respective standards and practices more closely, and to achieve uniformity wherever possible.

The mission will spend from four to five weeks in Great Britain as guests of the British Ministry of Aircraft Production, and the Society of British Aircraft Constructors, apposite number of the Aeronautical Chamber of Commerce of America. They will spend several days each at typical important aircraft centers and maintenance bases reviewing specifications and standards as affecting production, operation and service.

The United States mission includes T. P. Hearne, chairman of the international standards project of the National Aircraft Standards Committee, and standards engineer of the Ryan Aeronautical Co.; Eric Dudley, assistant to the director of engineering, Curtiss-Wright Corp., Airplane Division; Eugene W. Norris, director of technical services, Aeronautical Chamber of Commerce; J. D. Redding, manager, aeronautical department, Society of Automotive Engineers; L. D. Bonham, materials and processes department manager, Lockheed Aircraft Corp.; and Gustav Carvelli, standards engineer, Wright Aeronautical Corp. Lieut. Col. G. R. Gaillard, AAF, will represent the working committee of the Army-Navy Aeronautical Board, as an observer.

AMERICAN TECHNICAL MISSION TO BRITAIN:

A group of technicians representing the National Aircraft Standards Committee and the Society of Automotive Engineers is shown leaving British Air Commission headquarters in Washington after completing arrangements for a series of conferences abroad with British aircraft technicians: Left to right: Eugene W. Norris, Aeronautical Chamber of Commerce; Eric Dudley, Curtiss-Wright, Airplane Division; Thomas P. Hearne, Ryan Aeronautical; James D. Redding, Society of Automotive Engineers; Gustav Carvelli, Wright Aeronautical; Flight Lieut. Douglas Moffitt, RAF, British Air Commission, and L. D. Bonham, Lockheed Aircraft Corp.

GLIDER CARRIES TANK:

A light tank is shown backing into a British Hamilcar *glider, designed as a tank-carrier for airborne troops. The glider also can carry troops, guns and assault craft and vehicles of all kinds.*

U. S. May Lift Ban On Coast Flying

Restrictions on civilian aviation in area expected to be removed by Jan. 1 as result of San Francisco conference.

Removal of military restrictions on West Coast civilian flying by Jan. 1 may result from the recent conference of military and civil aviation representatives at San Francisco.

By mid-December, action may be taken by the Western Defense Command, headquarters San Francisco, to narrow the restricted zone to a thin coastal strip as was done recently on the East Coast, to modify regulations for the entire zone, or to combine both restriction easing methods.

Maj. Gen. Charles H. Bonesteel, commanding general, Western Defense Command, believes that by mid-December existing military conditions will have altered to a point where severe controls on private flying will not be necessary.

▸**Understanding Believed Reached** —While no formal declaration of policy was issued from General Bonesteel, it may be assumed that an understanding favorable to civilian flyers was reached at the recent meeting between the general, CAA regional managers H. A. Hook, Santa Monica and Paul Morris, Seattle, and Maj. Charles Hartranft, Jr., secretary of the interdepartmental traffic control board, Washington.

West Coast CAA managers presented numerous appeals and demands from private plane owners, schools and charter companies for restoration of coastal flying privileges for itinerant and non-scheduled flights. Morris left the meeting "hopeful" and Hook reported the case of the private flyer had won "a decidedly favorable reaction."

▸**No Conflict With Military Flying** —"We assured General Bonesteel that CAA will be able to control civilian flying adequately, to such an extent there will be no conflict with military operations," Hook said.

As of today, private flying is permitted only for "war essential" purposes, within the Western Defense Zone extending from Mexico to Canada, and extending 150 miles from the coast in California. Flights are permitted only from point to point between Army-designated airports, and civilian aircraft outside are permitted to come into the zone only for repairs at overhaul shops within the zone, when they cannot conveniently obtain these outside. Current regulations represent a relaxation from an absolute ban on private flying within the zone which was effective until recently.—S. B.

Revamp CAA to Meet Post-War Expansion

Reorganization of Civil Aeronautics Administration functions looking toward expansion of its services after the war, due to the impetus given aviation by the war and its inevitable increase in the post-war period, has been announced by Administrator T. P. Wright.

Functions are regrouped under three heads: Executive, Operations and Development. A new division of Foreign Operations, as forecast in AVIATION NEWS, Oct. 23, will be headed by Al S. Koch, former deputy administrator, now with the title of assistant administrator. The division, which comes under the Development grouping, is set up to anticipate activities in which CAA must engage because of expansion of our airlines abroad, requests from foreign governments for technical advice and assistance, and preparations for conferences and conventions with foreign nations relating to worldwide civil aviation, in which the United States will participate.

▸**Training Service** — Educational development is combined in the newly created Aviation Training Service, with Bruce Uthus as director. This includes civil pilot training, manpower training, air education program, training of foreign nationals and training research. A third development division is Airports Service under the present director, C. B. Donaldson.

Deputy Administrator Charles I. Stanton will direct the operations services including federal airways, safety regulations, the standardization center at Houston, Texas, Washington National Airport, and a regional councilor who will perform liaison between the CAA in Washington and the nine regional offices.

RAS to Hear Wright

T. P. Wright, Civil Aeronautics Administrator, has accepted an invitation to give the 33rd annual Wilbur Wright Lecture before the Royal Aeronautic Society of Great Britain in London next May on a subject of his own choosing.

Wright Field Tests Replica of Robot

ATSC construct "buzz bomb" after study of parts which fell in England.

A replica of the German V-1 robot bomb, built up by the Air Technical Service Command at Wright Field, after study of parts from bombs which fell in England, has been tested in this country in a project to develop adequate defenses against it.

Command officials said they had no interest in copying the weapon for offensive use, because our interest was in accurate destruction of military objectives rather than random destruction.

▸**27 Feet Long**—The robot measures about 27 feet in length over all and has a 17-foot wingspan. It includes a streamlined fuselage, over which is mounted a tube containing the impulse jet engine, which uses gasoline. A series of rapid explosions in the tube combustion chamber exert force against the air mass behind the tube through an opening, and drive the bomb forward. A "gate" in the front of the tube opens to admit air, and closes before each explosion to prevent loss of power. In operation the engine sounds like a giant outboard motor. Fuselage contains the war head or explosive, fuel, and automatic control equipment operated by compressed air.

Parts for the replica were machined in Wright Field engineering shops, after metals were analyzed to determine alloys. Jack and Heinz company is credited with reconstruction of the directional controls, which include a pre-set compass and a gyro-control automatic pilot. The bomb is subject to drift in crosswinds.

▸**Parts Reproduced** — Component parts are now being produced by several manufacturers to supply ATSC with a quantity of robots for actual launching tests. Ford motor company is building the engines; Republic Aviation Corp., the airframes and assemblies; Jack and Heinz, the control equipment and compressed air bottles; and Monsanto Chemical Corp., the catapulting rockets which launch the bombs.

Firing tests will be carried out at sites being constructed, and some of the robots will be fired with warheads, while special electrical equipment designed by ATSC aircraft radio laboratory will "track" bombs from launching to landing.

New Controllable Pitch Propeller For Lightplanes in Production

75 hp.-19-pound unit, manufactured by Diamoloy Tool Co., expected to be available for personal aircraft as soon as output can be stepped up to exceed military needs.

By BLAINE STUBBLEFIELD

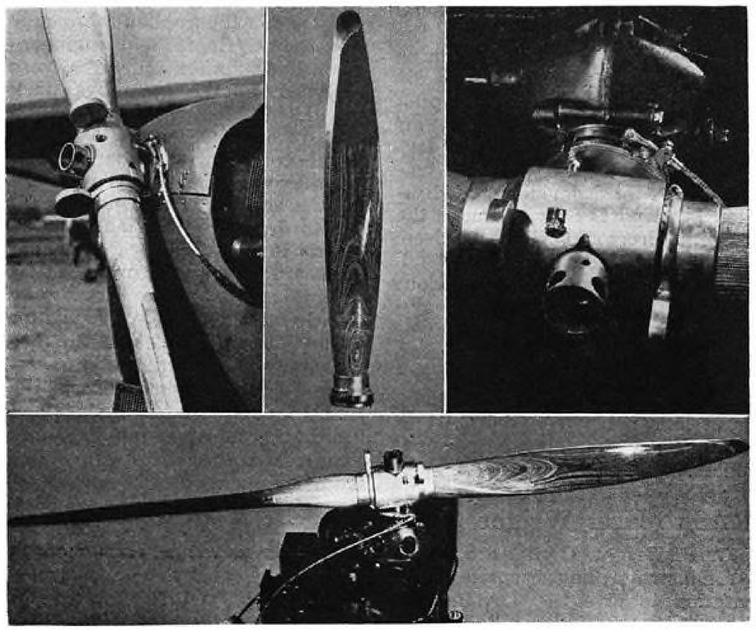
Diamoloy Tool Co. is in production on Annesley controllable pitch lightplane propellers. New and additional machinery is being moved into the plant now and output will be stepped up to quota level immediately.

Outstanding achievement claimed by the company in the Annesley design is simplicity and low weight—about 19 pounds complete, —approximately the same weight as that of a comparable fixed-pitch propeller. The manufacturer expects, when maximum production is achieved, to establish a price of approximately $1.25 to $1.50 per horsepower for civilian propeller.

▸ **Civilian Orders**—G. Annesley, owner and manager of Diamoloy, told AVIATION NEWS in an interview at his plant, 304 West 54th Street, New York, that he may be able to exceed his military production schedule and, if so, he can fill civilian orders very soon—in any case not much later than victory day in Europe.

The Annesley propeller is controllable, in two positions at present, by means of a push-pull cable from the cockpit. The change is made in flight, and it can be made under full thrust, but operators are advised to retard their throttles a bit before making the shift.

The blade angles are changed by the movement of the pitch control rods which engage with pivot pins on the bottom of the blade ferrules. Longitudinal movement of these rods, and consequent change to low pitch of the propeller blades, is effected by the movement in a forward direction of the thrust plate of the actuator. The actuator in turn is moved forward by pulling one of three actuator pins in three helical slots. This causes a forward helical movement of the thrust ring, bearing the thrust plate. A simple push-pull cable effects this movement.



The Annesley Controllable Pitch Propeller: *Upper left, installed on plane; upper center, blade assembly; upper right, hub and actuator; lower, the Model 75 mounted.*

▸ **Counterweights Used**—Movement of the blades back to high pitch, and their retention there, is effected by two counterweights, one on each blade ferrule. The counterweights are of such weight and radius that they exert a positive force in the direction of high pitch. They cancel out the centrifugal twisting moment which tends to turn the blades to low pitch position. Due to the action of the counterweights there are no heavy stresses in the propeller and only a relatively light pressure is required to effect the pitch change.

It will be observed that there are no moving hub parts in motion when the propeller is in high pitch. But the hub is designed and lubricated for any required duration of operation in low pitch, as in protracted climbing or carrying excessive load.

▸ **Other Projects**—In addition to the production design, called Model 75, Diamoloy has a 185 hp. model in production; also several other projects in development. One is a simple hydraulic controllable hub, for flange engines. (Model 75 can be used only on engines having taper or spline shaft.) A variation on the hydraulic hub is a constant speed unit, which can be priced between $2 and $2.50 per horsepower. Both of the hubs are out with aircraft manufacturers on test runs, and both feature simplicity and low weight.

Diamoloy Tool Co., which has been producing aviation and other metal products for many years, owns outright its New York plant. The entire plant is being tooled and fitted for propeller production, and some office facilities are being added and renovated. After the war, Mr. Annesley plans to construct a new plant, with an airport, in the region of New York, retaining the present one for other than propeller work.

▸ **Forecast**—Mr. Annesley believes lightweight, efficient, low-cost controllable hubs will be wanted on nearly all personal lightplanes in the early post-war period. He figures that about 8,000 lightplane wooden propellers are being produced each month now and that normally about four propellers are

produced for each airplane, as spares and replacements. His present facilities, when tooling is completed for the war order, will produce about 50 Model 75's per day.

In Mr. Annesley's opinion, present impetus being given to lightplane variable pitch propellers by Army and Navy air forces will make this source of efficiency available to non-scheduled flying, years ahead of the time it might otherwise have been expected.

Commenting further on the characteristics of Annesley hubs, Mr. Annesley said maximum low and high pitch can be varied by a simple adjustment. The normal setting is 16 deg. in. high, and 11 deg. in. low. The model No. 75 angle is measured 24 inches from center of the crankshaft.

All blades are wood at present, but the hub is easily convertible to metal blades.

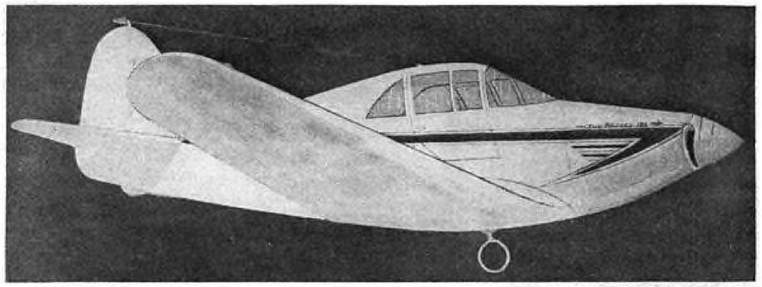
New Johnson *Rocket* Ready for Production

Craft prepared for "fall delivery" to be offered with 185 hp. or 140 hp. engines optional.

Engines of 185 or 140 hp. will be optional with the new single-engine Johnson Rocket, to be built at Fort Worth, Texas by Johnson Aircrafts, Inc., the exclusive distributor, Rocket Aircraft Sales Co., of Lubbock, Texas, reports. First plane, a demonstrator, will use 185 hp. engine, and is expected to be flying soon.

Distributor claims materials now are available for production of limited number of singe and twin-engine models for "fall delivery." Three-place single-engine Model 140, expected to make top speed of 175 mph. while top speed of Model 185 is not quoted. Twin-engine model with 220 hp. Continentals or Lycomings, is expected to make top speed of 215 mph., carry six. Estimated prices are: $4,500 for Model 140, $500 more for the bigger engine, and $12,000 for the twin- engine model.

Tricycle Landing Gear—Equipment includes hydraulic retractable tricycle gear, Koppers aeromatic controllable pitch propeller, flaps, night flying instruments, two-way radio, landing lights, etc. Design is reported similar to original Rocket prototype with 135 hp. engine reported first flown Nov. 23, 1942, now having logged 300 hours test flight, except prototype had conventional landing gear.



Newest sketch of R. S. Johnson's single-engine Rocket: *One of two basic designs he plans for personal and business use. Model shown will have either 185 hp. or 140 hp. engine, he reports. First plane being built as demonstrator will have 185 hp. Johnson's plant is at Ft. Worth, while L. D. Thomas, president of Rocket Aircraft Sales Co., Lubbox, Texas, has exclusive distributor rights for USA.*

Designer R. S. Johnson, was successively associated with Alexander Aircraft Corp., Colorado Springs; Culver Aircraft, Bennett Aircraft, and Globe Aircraft Corp., before forming his own company in 1942. Structural features of plane include: welded steel tubing fuselage faired with molded plywood structure covered with doped fabric, and all-wood, monospar, spruce and plywood wings, with molded plywood stressed skin, covered with doped fabric.

BRIEFING

For Private Flyers and Non-Scheduled Aviation.

By ALEXANDER McSURELY

Canadian Plane — A five-place twin-engine personal plane is being readied for production by a Canadian manufacturer. It is larger than the four-place type which most American manufacturers think eventually will be the best selling personal plane. It might have uses for pickup or small feeder lines.

High School Soloists—Tabulating results of *Ercoupe* flight training for 11 high school students at Parks Airpark, East St. Louis, William Thompson, manager, reports six boys were ready for solo after three hours, three girls were ready after 4½ hours, although minimum CAA requirement for *Ercoupe* solo is five hours' flight training. Possible further reduction of minimum requirement may be forthcoming as result of these and similar tabulations.

NATA Thinking—"It is certainly high time," says the National Aviation Trades Association Dispatch, "that a separate and distinct aviation committee be formed in both Houses of Congress and that the non-scheduled part of the aviation industry make its wants and problems understood by Congress." The newsletter chastizes the Bulwinkle Civil Aviation report, which makes it clear, NATA says, that the flying public and non-scheduled aviation has no place in Congress' thinking other than to be economically regulated and kept from interfering with the scheduled part of the industry.

More Complicated—Comes now Dr. Steggerda, University of Illinois physiology professor, with the opinion that civilian pilots should be required to study aviation medicine, know the limitations of the human body in its ability to withstand strains resulting from accelerations, atmospheric pressures and centrifugal forces. At a time when most aviation people are agreed that existing regulations are already far too complicated and are pushing for their simplification, the professor's suggestion is ill-timed. It would be an excellent idea, from the individual's standpoint if he knew something about these things, but as far as making it part of any compulsory requirement, hasn't the poor private flyer enough to worry about, already?

Resort Landing Strips—Aircraft Owners and Pilots' Association is working with the American Hotel Association to select resort hotels throughout the country where landing strips for accommodation of visiting flyers may be installed. A list of over 200 such proposed landing area sites already has been forwarded to CAA and CAB for survey leading to post-war development. AOPA points out that the more inaccessible the resort by other means of travel the more advantageous the landing strip installation would be.

Cheaper, Lighter, Tailored Chutes Seen for Post-War Private Flyer

Marked improvements in quality and performance and sharp reductions in price expected as result of synthetic textiles and preservation methods developed.

By ALEXANDER McSURELY

A parachute for the private flyer—what will be its requirements?

In the opinion of some government research experts, the parachute manufacturers now or soon will have available the materials and know-how to produce chutes far superior to those now in use and at much lower cost for the private flyer.

Present-day 'chutes differ only in minor details from those used 20 years ago. Although most American military 'chutes are now made of nylon, which does not disintegrate with age as does the silk formerly used, the same expensive and manhour-consumer method of repacking chutes periodically is still required by AAF and by CAA.

▸ **Synthetic Textiles** — Men who have studied new synthetic textiles which are mildew-proof and not affected by moisture say these could be used in building canopies and shrouds that would remain in good condition in the pack without resorting to repacking. Among such materials are mentioned Textron and Vinyon.

Considerable advance has been made recently in moisture-proof sealing of packages against mildew and similar damage. It is believed that even silk or rayon could be used for parachute canopies and could be packed indefinitely without repacking, if the pack was moisture-proofed.

▸ **Webbing Substitute** — Cotton webbing now used for parachute harness is 1¾ inch wide and ⅛ inch thick. This could be replaced by nylon webbing of the same strength 1 inch wide and 1/32 inch thick with considerable reduction in the bulkiness of the chute pack. The cumbersome seat pack type parachute is overdue for retirement, to be replaced by a comfortable vest or jacket with a backpack in which the chute is spread out to form a thin cushion over the wearer's back instead of a thick bundle at his posterior.

Today's parachutes are designed for hundreds of jumps. Yet no pilot, except possibly a test pilot or a military flyer, ever expects to use his parachute. It is considered entirely practical to design a parachute which the company could absolutely guarantee for five jumps, at a considerably lower price, thereby bringing it within the reach of the average private flyer. Present-day chute costs run about $350 for a 28-foot chute. It is believed that a chute entirely safe for five jumps, using lighter webbing and materials, could be sold with a good profit margin for $100. Moreover the cost of having a chute repacked periodically by a licensed parachute rigger becomes a major item. This cost would be entirely eliminated if the chute was moisture-proof or packed in a moisture-proof pack, where it could remain indefinitely.

▸ **Stability Improved** — Improvement of parachute stability offers another opportunity for parachute design ingenuity. The hole or vent at the top of the canopy was an attempt to improve stability, but much remains to be done. Varying porosity of cloth in the canopy may be the best answer.

The more porous the cloth, the more stable the chute, but also the more rapid its descent. The successful design must permit the chute to descend slowly enough for safety, at the same time utilizing more porous cloth where practicable.

One inventor recently patented a canopy made of cloth more porous at the skirts or edges, than at the center. Another method of attaining a similar result would be to sew an extra thickness of cloth into the center section. Both of these methods eliminate the center vent, but proponents say the results attained are decidely superior to the vent method.

Another attempt to improve stability utilized cloth sails or wings attached inside the canopy which were expected to dampen the oscillations of the chute. Tests were not regarded as highly successful.

Future private flyer's parachute requirements, as listed by the research experts, are:

▸ Moisture-proof material in mois-

HILLERCOPTER FISHING TRIP:

Stanley Hiller, 19-year-old inventor of the first successful counter-rotating helicopter, has prepared this drawing suggesting a use for his Hillercopter *by the post-war sportsman. Equipped with floats, the machine of the future rests on the water, enabling the fisherman to cast his line from its automobile type door. When he has caught his limit, he can ascend vertically and fly home. The* Hillercopter, *when put into mass production by Henry Kaiser on the West Coast, may be an important contender in the personal aircraft market. It is one of the most promising rotary-winged developments.*

ture-proof pack is needed to eliminate repacking.

- Bulkiness of harness and pack must be reduced.
- Stability must be improved, probably by varying porosity.
- Cost should be reduced from $350 to $100.
- Parachutes should be built for five-jump guarantee, rather than for hundreds of jumps.

Although such radical departures in parachute designs would require a testing program to establish the safety of the new designs to the satisfaction of government agencies, in light of wartime research, some experts in Washington laboratories are convinced that these improvements are inevitable.

Assuming that comfortable low-cost chutes are developed, it is probable that the majority of personal plane owners would keep them in their planes just as the motor boat owner keeps a few life preservers handy. Statistics are not available as to the percentage of private flyers owning and carrying parachutes in their planes before the war but it is a safe assumption that it was a very small fraction of the total.

Glider Conversion Data Issued by CAB

Board lists general requirements for adaption of trainers constructed basically from lightplane design.

Civil Aeronautics Administration has issued new technical information on conversion of training gliders constructed basically from lightplane designs.

General requirements listed by CAA are: complete power plant unit, including firewall, fuel system, instruments and landing gear structure and shock absorbing unit; spoilers, which are on all the wings, and the spoiler controls must be removed and the wing opening covered over with fabric; fin areas on the Aeronca (TG-5) and Taylorcraft (TG-6) will have to be reduced when converted to an airplane, or additional flight tests conducted for approval.

- **Aeronca**—All major structural component parts can be used on the Aeronca O-58B (type certificate 751) with the following exceptions: fuselage structure forward of bulkhead No. 1; bulkheads 1U-1L and 1U-2L and side and top truss between bulkhead 1U-1L and 2U-2L; fin; landing gear; stabilizer, and wing spoilers. Stabilizer of 65CA was used on the TG-5 instead of the O-58B type.

The O-58B, incidentally, is similar to the L-3B and L-3C Army versions now being sold in surplus. Both are approved only with a Continental engine. CAA says, however, that Franklin or Lycoming engines can be installed and approved "subject, possibly, to a small amount of additional testing." The Aeronca T series (Type certificate 728) aircraft are similar to the O-58B, and CAA says "it appears that the G-3 (TG-5) gliders may be converted into T series airplanes also. However, there are several minor structural differences."

- **Piper**—In the case of the Piper, all major structural component parts of the TG-8 glider can be used on the Piper J3 series (Army L4) aircraft with these exceptions: structure forward of the front landing gear fitting; landing gear and wing spoilers. CAA notes that the necessity for considerable change in the forward fuselage structure makes this glider less readily convertible than Aeronca or Taylorcraft gliders. The company recommends use of the gliders only for spares.

Taylorcraft major structural component parts can be used on the Taylorcraft D series (Army L2) with exception of the structure forward of the firewall; landing gear, vertical tail and wing spoilers.

So far only Piper TG-8, Laister-Kauffman TG-4A and Sweitzer TG-4A gliders have been offered for bids, although Taylorcraft and Aeronca models are expected to be offered almost immediately. There are no ceilings on these training gliders.

KEY MEN AT GEORGIA AVIATION CLINIC:

Leaders in three important national aviation groups are shown above as they discuss plane problems in interlude at Georgia Aviation Clinic at Macon. Left to right: J. Wendell Coombs, president, Aeronautical Training Society; Lowell Swenson, manager, National Aeronautics Association, and John Wilson, manager, National Aviation Trades Association.

Stress Small Ports

Need for development of many small airfields in Missouri was urged by speakers at the Missouri Small Airport Planning Conference at Columbia, Mo., last week. Approximately 100 persons from various communities, representing chambers of commerce and aviation interests, heard John Wilson, National Aviation Trades Association executive director, and Eugene V. Fryhoff, aviation division, Missouri State Department of Resources and Development, principal speakers.

Wilson called for modest beginnings, using small level fields for private plane landings and take-offs, and growing crops on part of the land as an additional revenue. It was pointed out the State now has fewer than 30 airports, and needs many more. Fryhoff said main need was for small airpark type fields and not huge, expensive airports.

Canadian Air Clubs Bare Post-War Plans

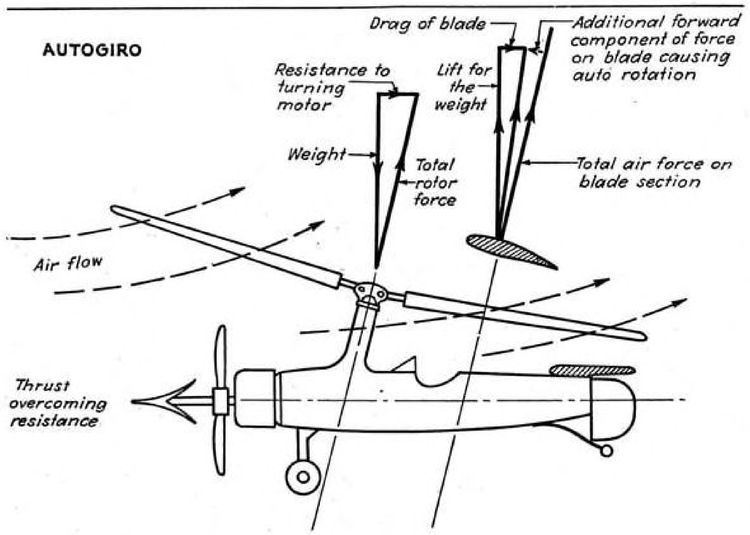
Several seek new fields as part of expansion programs.

Plans for post-war civilian operations by Canadian flying clubs, principal civilian flying operators in the Dominion, are being reported by individual clubs, although no integrated program is as yet reported from the Canadian Flying Clubs Association, Ottawa.

The clubs originally were established in 1927 to provide a nucleus of pilots and mechanics in the event of national emergency. Many of the club members joined the Royal Canadian Air Force, in the early stages of the war, and flying clubs were used for elementary training by RCAF, until later an RCAF training program took over this work.

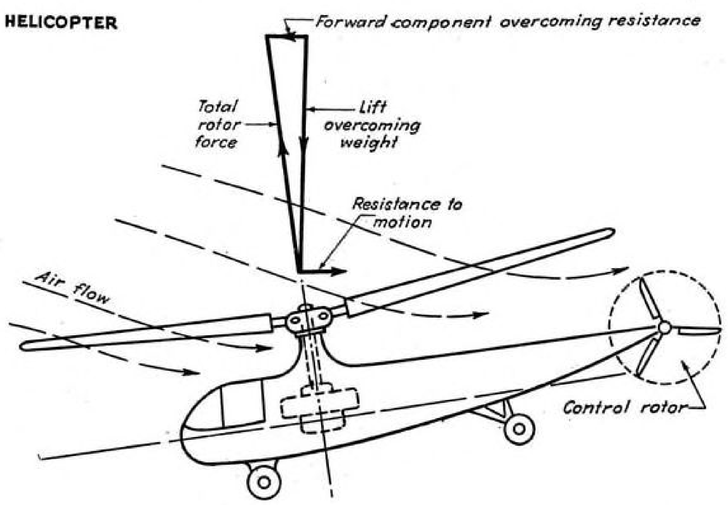
▸ **Program**—Reports from individual clubs show:

* Kitchener Waterloo Club is looking for a larger airfield, to be operated in conjunction with other neighboring Ontario municipalities.
* Kingston, Ontario, Club has been granted permission by the Department of Transport to receive or buy 20 deHavilland Moths, and will be allowed use of Collins Bay airport, since the former municipal airport has been used for wartime housing.
* Toronto Flying Club is looking for a new field around Toronto, having sold most of its assets.
* Hamilton Flying Club also is looking for a new field, may share a nearby RCAF field with the municipality after the war.



LOENING EXPLAINS DIFFERENCE:

Grover Loening, rotary-aircraft expert, prepared the above drawing to explain to members of the Aero Club of Washington, the differences between helicopter and autogiro. Upper drawing shows the autogiro with conventional airplane propeller, and freely turning rotor, actuated by the forward movement of the aircraft. Lower drawing shows Sikorsky-type helicopter with its engine-powered rotor which gives the craft thrust forward as well as lift, and the smaller anti-torque rotor in rear.



Turner Discontinues Detroit-Memphis Line

After 40 days of experimental flying, Roscoe Turner Aeronautical Corp. at Indianapolis has discontinued its daily charter service between Detroit and Memphis, having carried enough passengers during the operation to pay approximately half the costs.

▸ **Valuable Data** — Col. Roscoe Turner reports the service provided "much valuable information" on operating costs, type of equipment to be used, and size of cities to be included. The service was operated without advertising a schedule, except by direct mail notices to war plants informing them the service was available. It was discontinued after L. Welch Pogue, CAB chairman, notified Turner the daily service might be interpreted to be a scheduled airline service.

Equipment used on the flight consisted of Stinson *Reliants*, with Turner's personal plane, a Waco, used as an extra plane when needed. One flight was operated each way, each day, with no set schedule, with intermediate stops at Toledo, Ohio, Ft. Wayne, Anderson, Indianapolis, Terre Haute and Evansville, Ind., Paducah, Ky., Martin, and Jackson, Tenn.

Seattle Air Parks

Initial plans for early postwar construction of at least three airfields within the Seattle, Wash., city limits for private planes were discussed at a recent meeting in Seattle, Wash., of flying enthusiasts and the Aviation Committee of the Seattle Chamber of Commerce. The Chamber's committee is working with Gov. Arthur B. Langlie's State Aviation Committee in a program for establishment of a statewide network of small airparks or strips.

COMMENTARY

Land-Based Air Power on Leyte Will Pave Way for New Goal

Island will have to be built up as strong air base for long range fighters and bombers as prelude to moving up to Luzon.

Fortunately for our side the Jap learns his military lessons slowly. Ever since our slow and painful capture of Gona and Buna in New Guinea in January, 1943, our land-air team under Generals MacArthur and Kenney, and sea-air team under Admirals Nimitz, Halsey, Spruance, Mitscher, and Generals Hale and Twining, have repeatedly by-passed the next obvious goal and tackled one at least a couple of jumps ahead, sometimes more.

Overleaping Lae by means of paratroops and airborne engineers, they seized that strong point in a matter of days. Feinting heavily at Wewak by smashing its power ful concentration of air power, they passed it by and also the strong base at Aitape in a long forward pass to Hollandia. More recently, when all signs pointed to bombed-out Halmahera, they seized Morotai with hardly a struggle.

Island-hopping Pays Off—Likewise in the South and Central Pacific. Guadalcanal to Munda, to Vella Lavella, to Bougainville, to the Green Islands, skipping many obvious and important enemy bases, and cutting off Rabaul from the east, and all points south. Kwajelein and Eniwetok in the Marshalls, cutting off much-bombed Mille, Jaluit, etc.; the Marianas instead of Truk; the Palaus instead of Yap; and so the pattern is set. And now Leyte instead of Mindanao. Next jump is anybody's guess, but it will hardly be soon.

Leyte will have to be built up as a powerful air base for long range fighters, medium and heavy bombers, advance striking units of the Fifth Air Force, home again at last. (The Fifth was organized in the Philippines as the Far East Air Force just three years ago, Oct. 28, 1941. After its heroic efforts in the early months of the war in the Philippines, Java, Australia and 30 months in New Guinea, elements of it are again in the Philippines, part of the recently named and immensely more powerful Far Eastern Air Forces, commanded by Lieut. General Kenney.) Digging in at Leyte will take several weeks, but strong air power on the island will pay rich dividends.

ALLIED PLANES STRIPPED BY NAZIS:

Spitfires *and a Republic P-47* Thunderbolt, *partly stripped, can be seen in this bombed hangar near Paris, where the Germans kept downed Allied planes to salvage parts for their own aircraft.*

Cutting Jap Supply Line—Moving up to Luzon with its rich prize of Manila, finest naval, air and military base in the Far East, is a logical objective. Luzon is a key to the Japanese Empire as presently constituted, guarding the sea lanes to the Netherlands East Indies, Malay States, French Indo-China, Thailand and Burma. So also is heavily fortified, though at the moment somewhat shaken, Formosa—if anything more so than Luzon, with its close relation to the home islands, China coast and dominating spot in the South China Sea.

Whether we take Luzon or Formosa (or both), the months of Japan's ability to obtain vital supplies from her rapidly swallowed but undigested Indies conquests are numbered. Here is a key to the Jap strategy in China. Cutting China in two and pushing General Chennault's highly disrupting air power back into the Styx are two obvious and worthwhile objectives. However, it may be that both are subordinate to their frantic desire not only to close the gap in the Peiping-Canton north-south railway, but to connect up a through rail line to Singapore from Hengyang through Kweilin, Nanning, Hanoi, Saigon, Bangkok, Penang, and Kuala Lumpur. This would provide a means of securing at least some urgently required supplies and of evacuating large numbers of troops now cut off by sea, stationed in the Celebes, Borneo, Java, Sumatra and the Malay States.

Oil for Nippon's Planes—Roughly two-thirds of Japanese oil production comes from Borneo, Java and Sumatra, with a still higher percentage of aviation gasoline and fuel oil. Important points are the large oil refinery at Balikpapan, near the oil fields at Sanga-Sanga, and the oilfield at Tarakan, all in eastern Borneo. Largest oil refinery in the whole Jap empire is at Palembang, Sumatra. Java has a large oil refinery at Tjepoe.

There are highly important industrial works, including ordnance, locomotive, shipbuilding and aircraft assembly at the flourishing centers of Batavia, Bandoeng, Soerabaja, Madioen and Probolinggo. More than three-fourths of Japan's nickel supply comes from Pomelaa and Malili in the Celebes. Strangling the Nipponese military machine of cutting off such an array of vital supplies and finished goods is an air objective with high priority, and will prove to be one of the main results of MacArthur's return to the Philippines.

—NAVIGATOR

PERSONNEL

★ ★

Col. W. Fiske Marshall, former operations manager for Northwest Airlines, who directed Marine aviation supply units at Guadalcanal and later organized the South Pacific Combat Air Transport, has returned to the company as executive assistant to the president. His headquarters will be in the executive offices in St. Paul. Marshall first joined Northwest in 1939 as superintendent of the Eastern division and later became system operations manager.

Dave W. Choate has been named industrial manager at Atlanta for Minneapolis - Honeywell Regulator Co., and its precision industrial instrument division, the Brown Instrument Co. Choate has been in charge of the Milwaukee branch of the company. **W. S. Robards** will replace Choate at Milwaukee. He has been stationed in St. Louis.

Brig. Gen. Arthur W. Vanaman, a former secretary of the Air Staff, headquarters, Army Air Forces, and later commanding general of the Oklahoma City Air Service Command, has been awarded the Legion of Merit. General Vanaman was reported missing and later reported a prisoner of war in Germany. He was well known to the aircraft industry while he was commanding general, materiel center, Wright Field, Ohio, in 1942.

Ralph Wall has been promoted to assistant sales manager, Pacific division, Bendix Aviation Corp., North Hollywood. He formerly was liaison sales engineer of the Pacific Division sales department.

W. Ward Jackson, who has served at the War Production Board as aviation consultant to the chemicals bureau and on the Aircraft Production Division prior to that, has been named director of the product application department of Celanese Celluloid Corp., plastics division of the Celanese Corp., of America. Jackson, who was on leave from the Celanese Corp. to WPB, will have headquarters in New York.

Brig. Gen. Benjamin W. Chidlaw, jet propulsion pioneer, has assumed command of the Twelfth Air Force Fighter Command, Allied Mediterranean headquarters announced. General Chidlaw has been chief of the Materiel Division on the staff of Gen. H. H. Arnold and recently received the Legion of Merit for his part in the development of jet propelled aircraft. When he first arrived in the Mediterranean theater, General Chidlaw was deputy commander to Brig. Gen. Gordon P. Sayville in the Twelfth Tactical Air Command.

Al Wolfle has been named employment manager for Braniff Airways, Dallas. Wolfle has been with Braniff for five years and recently was district traffic manager in Oklahoma City. While in Oklahoma City he was a member of the aviation committee of the Oklahoma City Chamber of Commerce. Earl Sealey has been appointed district traffic manager for Braniff in Houston. He has been agent in charge at Love Field, Dallas.

Capt. Oliver J. Studeman has been named operations manager of the Pacific-Alaska division of Pan American Airways. He has been with Pan American for more than eleven years, and prior to that served with the Army Air Corps. He became chief pilot in the western division and in 1940 made the first plane survey for Pan American from Seattle to Alaska. He replaced **Capt. J. H. Tilton,** who has reported to New York for a new assignment.

Philip D. Baldauf has resigned as chief product engineer of Eastern Aircraft division of General Motors, and has been replaced by **Wallace E. Wilson,** who has been assistant chief product engineer. Baldauf joined Eastern in 1942 when the plant went into production of the Avenger torpedo bomber. He had formerly been chief engineer at the Chevrolet Commercial Body division in Indianapolis. Wilson came to Eastern in 1942 from Oldsmobile in Lansing.

D. H. Robinson has been named personnel manager for United Air Lines' New York office to succeed **Carl Murray.** He will have offices at the Air Lines Terminal Building and La Guardia Field. He has been located at Denver. Murray has been assigned to the airline's Los Angeles Traffic office as mercantile representative.

H. Curtis Hardick, formerly field representative of Republic Aviation Corp., Farmingdale, L. I., assigned to subcontractors associated with the manufacture of the Thunderbolt P-47 fighter, has been named general manager of D. A. Comstock and Co., South Norwalk, Conn., manufacturer of B-29 engine covers, elements for electrically heated flying boots and other products for the services. Before joining Republic he was with Western Electric Co.

Hyde Barrand, who has been patent counsel for All American Aviation, Inc., has resigned to open an office in Philadelphia where he will specialize handling of patent cases before the Patent Office and the courts. Ballard prepared the prosecution and preparation of patent applications for All American for the past two years. He will continue to act for All American in a consulting capacity and to conduct the company's patent prosecution with the assistance of **Glen Mead** who is now patent liaison engineer.

D. C. Vaile, former executive of the Seattle Chamber of Commerce, has been appointed assistant to the western traffic manager for Northwest Airlines. Vaile was manager of the industrial department of the Chamber and also served as manager of the aviation department. He was instrumental in organization of the Northwest Aviation Planning Council in that territory several years ago.

Col. Leslie B. Cooper, 50, helicopter expert and son of Rear Admiral Philip H. Cooper, was killed in a plane crash Oct. 18 in taking off from the 2nd Ferrying Group base at New Castle, Del. **Lieut. James A. Finfera,** 30, former aviation editor of the Columbus (Ohio) *Citizen,* was killed in the same crash. Colonel Cooper had recently been assigned to the engineering division of the Air Technical Service Command at Brookley Field, Mobile, from Wright Field, but retained close contact with the aviation laboratory where he had been engaged since 1942 in helicopter de-

velopment. Between 1931 and 1942 Colonel Cooper was credited with 2,900 hours of flying as an autogiro pilot.

Doris Miller assumed her new duties as special press representative for American Airlines in Washington Oct. 23. Miss Miller has been assistant press chief for Civil Aeronautics Board for the past four years. She has offices now in the Southern Building.

Melvin M. Mason, contracts administrator at the Nashville Division of Consolidated Vultee Aircraft Corp., has been named chief of contracts for the division. Mason joined Vultee Aircraft, Inc., in 1939. He served as contracts coordinator at the Stinson Division in Wayne, Mich., before coming to Nashville.

Fred Lerew, formerly personnel manager of Laister-Kauffmann Aircraft Corp., St. Louis, has been named assistant general manager, replacing **Ralph Lemon,** who has been appointed contract administrator.

William T. Grant, president of Business Men's Assurance Co., of Kansas City, has been elected a director of Aircraft Accessories Corp. Grant is also president of National Security Life Insurance Co. and a director of Kansas City Fire and Marine Insurance Co., Kansas City Power and Light Co., and Metropolitan Savings and Loan Association.

United States Plywood Corp. announces the following appointments in line with the post-war sales expansion program: **Fred B. Smales** will be manager of the new California sales division in Los Angeles; **Don L. Braley** has been appointed manager of the San Francisco distributing unit; **Don L. Kesselring** is manager of the distributing unit at Oakland; and **John D. Patriguin** becomes resident manager in Fresno.

William J. Moyer, formerly a newspaper correspondent in Pittsburgh, Akron and Canton, Ohio, has been named publicity representative in Washington for United Air Lines. Moyer will be located in the Shoreham building.

Ernesto Franco has joined TACA Airways Agency as legal adviser for the twelve TACA agency companies scattered throughout Central and South America. Prior to joining TACA, Franco was with Pan American-Grace Airways, Inc., as legal and administrative assistant to vice-president **Gustavo Vidal**. The New York offices of TACA Airways Agency are located at 630 Fifth Avenue.

AWARDED DUTCH MEDAL: *Three Consairway flyers have been awarded the Netherlands Flying Cross by Queen Wilhelmina of Holland for their part in flying the Dutch East Indies Air Force's commanding officer from Pearl Harbor to Soerabaja, Java, immediately following the initial Jap attacks on Hawaii and the Philippines. Left to right: Netherlands Consul General G. W. Boissevain made the award to Frank Basista, Hubert Huntington and Rudolph Svoboda.*

Capt. Gordon C. Shook has been retired from the Army and has resumed his position as district traffic manager for Braniff Airways in San Antonio. Before entering the Army in 1942, Shook was with Braniff for seven years. While in the Army he served tours of duty at National Airport, La Guardia Field and was air base commander of one of the islands in the Southwest Pacific.

R. B. Swanson has been named chief of contract at the Miami Division of Consolidated Vultee Aircraft Corp. Swanson was supervisor of contract administration before his new post.

Clinton T. Donnelly, formerly chief of the engine and propeller unit, Army Air Forces, Eastern Procurement District, is now associated as contact manager with the Diamoloy Tool Co., New York, N. Y., manufacturers of Annesley controllable pitch propellers for lightplanes. Mr. Donnelly will act as liaison representative for the company on all Army and Navy work and will supervise the technical data advertising departments. At the present time Diamoloy is in production of the Annesley Model 75 and Model 185 controllable pitch propellers for the AAF L-4J and L-5J.

TELLING THE WORLD

• Four aviation advertising campaigns, three by aircraft manufacturers and one by an airline, have been included in the 77 campaigns chosen for coverage in *The Blue Book*, advertising annual.

West Coast Aircraft War Production Council campaign was reported to have reduced substantially a labor turnover of 19,000 workers a month and to have helped recruit 13,000 new workers. Account was handled by Foote, Cone and Belding.

Manpower problems dominated the advertising of Eastern Aircraft division, General Motors Corp., and Lockheed Aircraft Corp. Campbell-Ewald Co., was agency for Eastern. Both aircraft companies increased their recruitment.

Western Air Lines' campaign set out to build post-war prestige and airline traffic by detailing possibilities after the war.

• According to word from London, American advertisers are cabling their advertisements to Britain where they often appear within a few days. Recently Chandler Evans Corp., South Meriden, Conn., cabled the advertisement it has run in Canadian and Latin-American publications for insertion in *Aeroplane* and *Flight*. Consolidated Vultee Aircraft Corp., is another firm that has advertised in Britain.

• Association of Export Advertising Agencies has issued a pamphlet "60 Flying Hours from Your Office," which emphasizes how promotion of export sales may be helped by centralized export advertising. Copies may be obtained from Henry R. Webel, 60 East 42nd St., New York City.

• Newell-Emmett Co., advertising agency with headquarters in New York, has been appointed to handle the account of Northwest Airlines, starting Dec. 1. George S. Fowler has been named account executive. Representatives will visit all cities along the Northwest system before launching plans for an advertising campaign, they announced.

• Vern M. Boxell has joined the staff of the Edward L. Bernays organization. For the last two years he has been assistant manager of public relations for Curtiss-Wright Corp., propeller division, and previously was on the editorial staff of the Indianapolis *Times*.

• Delta Air Lines has issued an informative booklet on the line's activities for distribution to passengers. The brochure is in color and is distributed as a souvenir.

• Keith Slayton, formerly on the staff of *Tide* Magazine, and Eugene H. Brokhaus, formerly with the Chicago *Herald-Examiner*, have joined the Henry Publishing Co., as members of the staff of Airways, a new publication for airline passengers.

Details of Fairchild *Packet*, New AAF Cargo Plane, Disclosed

C-82 estimated by company engineers to have capacity for 76 day passengers or 30 sleepers; production to be stepped up after V-E day.

Military restrictions surrounding the development and production of the AAF's latest cargo airplane, Fairchild's C-82 *Packet*, have been lifted enough to disclose additional details of this long-range craft which is being produced at Fairchild's plants at Hagerstown, Md.

The recent first flight of the C-82 marked Fairchild's re-entrance into the large plane field and the C-82 generally is regarded as figuring prominently in Fairchild's bid for post-war commercial contracts (AVIATION NEWS, Sept. 12). Coincident with the completion of the plane's second series of flight tests came word from Washington that production of the C-82 would be stepped up immediately following the end of hostilities in the European theater.

Short Takeoff—In addition to details previously reported by AVIATION NEWS, it may now be disclosed that the C-82 is powered by two Pratt & Whitney 18 cylinder R-2800-22 engines, with a takeoff horsepower of 2,100 each. Takeoff distance is described by Air Technical Service Command engineers as very short for this type of airplane, it being in the 50,000-pound class.

Engines are mounted at forward ends of the booms. Wings are of gull design. Landing gear is of the tricycle type. Wing span is 106 feet.

Though its immediate application is for tactical purposes, Fairchild engineers see in this new craft many varied post-war uses both in domestic and foreign air express and passenger operations. They estimate that the *Packet* can carry as many as 76 passengers by day and 30 by night in upper and lower berths on both sides of the aisle.

Luxury Airliner—As a luxury passenger airliner, the *Packet* is expected to have provisions for 50 passengers in spacious reclining chairs, a lounge, washroom and observation space. Conversion from passenger transport to aerial freighter may be accomplished in less than an hour by removing and storing passenger seats.

Accurate per-ton mile operations costs are not yet available.

Structure—Fuselage of the C-82 is literally suspended beneath the cantilever wing. Center wing section includes the engine nacelles, which form the forward portions of the twin tail booms. It passes through the extreme top portion of the fuselage at the point of maximum depth a few feet behind the flight deck.

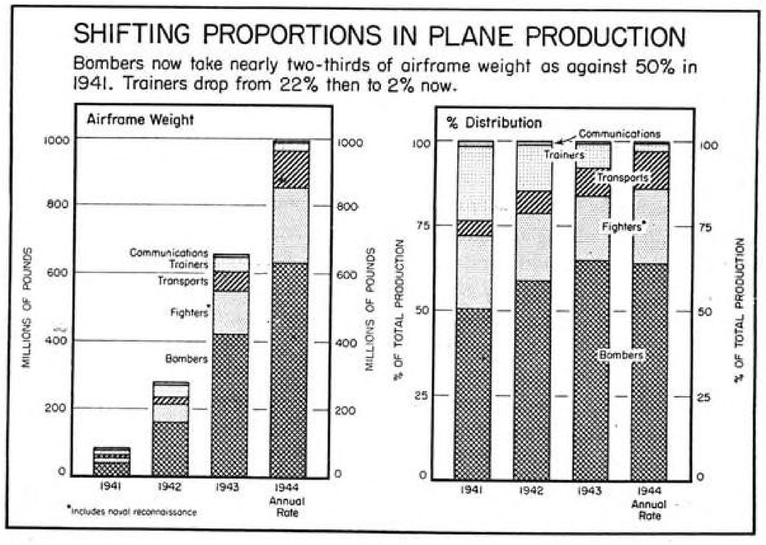
From each side of the fuselage, the center section slopes downward to the points where the outer panels are attached to it. Both the center section and the outer panels are of two-spar construction using ribs of alclad sheet. The outer panels are reinforced both top and bottom by a corrugation skin beneath the flat alclad covering skin, while the corrugation under the center section skin is used only on the lower side.

Twin Tail Booms—Two aluminum ailerons, fabric covered, are used on each outer panel. The twin tail booms supporting the empennage are of metal monocoque construction. The horizontal stabilizer is of conventional alclad frame and covering, as are the vertical fins. Rudders and elevators are alclad frames with fabric covering. Two tabs are used in the elevator and one in each rudder. Two slotted wing flaps are used on both sides of the wing from the ailerons inboard to the fuselage, one inboard and one outboard of the engine nacelles.

Fuselage is of monocoque construction with alclad sheet and formed longitudinal stringers mounted on fabricated alclad frames. Seven longitudinal beams take the floor and tie-down loads in the main cargo area beneath the plywood-covered floor.

Tricycle Landing Gear—Landing gear, as previously reported is of the tricycle type with single wheels at all three points. The main wheels retract into the underside of the engine nacelles, and the nose wheel is concealed within the nose section forward of the cargo space. Total vertical travel of the main wheels is 9½ feet. Electric instead of hydraulic mechanisms are used for operation of all power-actuated devices except brakes through the airplane with emergency hand operation mechanisms also provided.

This is the first warplane designed from the drawing board up solely for hauling military cargo. The original design was begun late in 1941 by Armand Thieblot, Fairchild's chief engineer, in answer to the need of the AAF for a fast,



long-range military cargo plane which could also be adapted to other tactical purposes. A mock-up was completed early in 1942 and before the end of that year the AAF mock-up board, with some modifications, approved the design. Detailed engineering work was begun by the combined engineering staffs of Fairchild and the Air Technical Service Command, Wright Field. Actual engineering and design, including the construction and preliminary flight testing of the prototype took less than 21 months. —C. S. H.

AAF to Procure Own Radio Equipment

Job of development, research and maintenance of communications devices, previously function of Signal Corps, is transferred to Air Forces.

Army Air Forces has taken over procurement of all communications equipment peculiar to the AAF. This function heretofore has been lodged in the Signal Corps, although AAF officers have been assigned to work on development of aircraft equipment.

Transfer to AAF marks the end of several months of discussion between AAF and Army Service Forces under which Signal Corps procurement functioned. ASF has been contending that most of the units use common items and that duplication in procurement will follow separation of ground and air buying.

▸**AAF Gets Responsibility**—Under the War Department directive, responsibility for research, development, procurement, storage, issue and maintenance of air communications equipment has been shifted to the AAF. Over-all control of the new program will be in the hands of Brig. Gen. H. M. McClelland, air communications officer.

The air communications officer is directed to implement any directives of the special consultant to General Arnold, Dr. E. L. Bowles, who is on leave as dean of the electrical engineering department of Massachusetts Institute of Technology, and who also is listed as an expert consultant to the Secretary of War.

According to the regulation setting up organization of the new program, the special consultant "assists and advises the Commanding General on special communications plans and programs and is empowered to act for the commanding general, AAF, through the medium of the chief of air staff in the determination of policies, the initiation of special projects and in all matters in any way concerned with communications, including planning, training, organization, personnel, intelligence, procurement, requirements and operations."

PORTABLE AIRCRAFT SERVICE STATION:

Aircraft engine test unit used in the field by the Army Air Force provides for checking of every important phase of engine operation. These portable test units, designed and built by Jacobson & Co., specialists in aircraft engine test equipment, are so planned that two radial air-cooled or two liquid-cooled engines may be tested simultaneously.

Honored for JP Work

Col. Donald J. Keirn, of Wright Field, has been named winner of the Thurman H. Bane Award for the most important achievement by an officer or civilian of the Air Technical Service Command for his part in development and production in quantity of the turbo-jet engine now powering American and British planes.

The award, given annually by the Institute of Aeronautical Sciences, will be made to Colonel Keirn at Dayton on Nov. 9 by Lieut. Gen. William S. Knudsen, head of the Air Technical Service Command.

▸**Sent to England**—In connection with the award, it was disclosed that Col. Keirn was sent to England to observe the secret development of the jet engine devised by Air Commodore Frank Whittle as long ago as 1941. By 1943 he returned with designs and British experts and, with the cooperation of General Electric, the engine was developed for an airplane which was designed and built by Bell Aircraft Corp.

Helldiver Output

Full production of Curtiss 2B2C *Helldiver* dive bombers will continue for at least another 12 months and cessation of hostilities in Europe will not affect production schedules, according to Rear Admiral B. C. Ramsey, chief of the Bureau of Aeronautics.

At the same time it was announced that production schedules for the *Helldiver* at the Columbus plant of Curtiss-Wright have been met or surpassed during the past year and in addition to completed planes the equivalent of 750 additional planes had been produced by the plant in spare parts and assemblies.

Supersonic Wind Tunnels

Manufacturers, confronted with prospect of preparing for baffling problems to be encountered by aircraft flying at the speed of sound, or faster, are discovering that ballistics research laboratories can offer valuable data.

More wind tunnels making possible tests of fantastic speed, several times that of sound, and with larger throats than any yet built, are being constructed.

Ballistics experts are making available spark and high speed x-ray pictures which show what happens with respect to shock waves and compressibility at super-speeds.

Two Plants Pass 50,000 Engine Mark

Chevrolet Division of GM and Packard plants pass production mark on Pratt & Whitney and Rolls-Royce Merlin power plants.

More than 50,000 Pratt & Whitney aircraft engines were turned out by the Chevrolet Motor Division of General Motors in the 30 months to Sept. 30 in eight New York and Midwest plants. Production peak came in November, 1943, when 3,502 were produced.

Packard Motor Car Co. also announced it had topped the 50,000 mark in production of war engines. It has been producing the Rolls-Royce Merlin engine, used in five Allied planes including the North American P-51 *Mustang* and the *Mosquito* fighter-bomber, and Packard marine engines used in PT boats.

▸ **Chevrolet Makes Three Models**— Chevrolet has been building three models of P&W engines. Two models of 14-cylinder, 1,200 hp. are used on *Liberator* bombers and Douglas C-47's. The third is the R-2800-C, turning up well over 2,000 hp. and used in the Northrop P-61 *Black Widow* and the *Thunderbolt*.

The engines are mass produced in plants in Buffalo, Indianapolis, Muncie and Anderson, Ind.; Detroit, Bay City, Saginaw and Flint.

Packard's 50,000th: *Packard President George T. Christopher turns his company's 50,000th war engine over to H. F. Schwedes, North American Aviation's Texas Division manager for installation in a* Mustang *fighter. The engine is a 1,500 hp. V-12 liquid-cooled Rolls-Royce Merlin with supercharger for high altitude work.*

TEST SELF-SEALING TIRE: *Micro-flash photo by AAF engineers at Wright Field, Dayton, shows test of inflated self-sealing tire by cannonfire. A 37 mm. cannon shell had just passed through the inflated tire when this picture, made with one-two millionth second exposure was taken. Afterwards only two small slits in the sidewalls marked the passage of the cannon shell, and the still inflated tire was good for 100 miles more travel. The tire had previously been in combat use for several months.*

Duramold Move

Headquarters for Duramold Division of Fairchild Engine and Airplane Corp. are being moved from New York City to Fairchild's Burlington, N. C., plant where AT-21 trainers were made until the recent cutback in trainer production.

The shift involves executives of the division and other lead men, about 30 to 35 in all. Direct and indirect employees of the division in New York totaled about 130, including technicians and research personnel.

▸ **Expansion** — Recent contracts awarded Duramold call for an expansion of facilities not possible in the New York quarters, but which can be handled at the Burlington plant, a DPC facility. Duramold process of moulding plastics and plywood for aircraft is a Fairchild development.

Shift to Farm Tools

Davis-Westholt Manufacturing Co., Inc., of Wichita, which has been producing aircraft parts, will go into the farm implement field as soon as work on present contracts is completed.

Company already is making some hydraulic lifts and feed grinders, both on the preferred list of essential items of the War Production Board. The hydraulic crane-loaders are being distributed by Ford dealers.

Navy Asks Speed-up

Navy is driving for intensified production of planes and equipment, with virtually every company producing aircraft or components either receiving telegrams or visits from top Navy airmen assuring them no cutbacks are contemplated for that product and that they are vitally needed in the Pacific warfare.

Curtiss-Wright employees have been notified production of SB2C *Helldivers* will continue at least another year, and Eastern Aircraft Division of General Motors employees have been asked to step up production of *Avenger* torpedo planes by 40 a month above present high-level output.

Boeing Cutback

Branch plants of Boeing Aircraft Ltd., at Nelson, Chilliwack and Victoria, B. C., have been closed because of cancellation of part of Boeing of Canada's contract for Consolidated PBY *Catalina* flying boats, John McGraw, assistant general manager, discloses.

Boeing of Canada now is making parts for the Boeing B-29 *Superfortress* in addition to completing the balance of the PBY contract remaining after the cutback at its Vancouver plant.

A "Shoe Box" Auto Engine?

Not only will the jet engine and geared gas turbine power plant probably replace someday the reciprocating engines used in aircraft, but they will be built at half the cost and will offer drastic weight reductions, according to a chief engineer of a major aircraft company.

As an example of the possibilities of these new power plant developments, the engineer, whose name cannot be used because Army and Navy officials do not wish it known that his company is working on jet propulsion, expressed the opinion that an automobile gas turbine engine giving a power output equal to that of a present day auto motor, will need be no larger than a shoe box.

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AA Revamps Capital Structure To Meet Post-War Expansion Needs

Stockholders to vote Dec. 6 on plan to increase authorized common from 1,000,000 shares to 2,400,000; company expected to retire 50,000 preferred Jan. 15, 1945.

American Airlines, in a far-sweeping revamping of its capital structure, is preparing to anticipate its future financial requirements. As indicated in AVIATION NEWS, Sept. 18, 1944, American, committed to purchase new Douglas equipment costing approximately $30 million, is clearly without the immediate capital resources to finance such fleet acquisition. Now a financing plan has been unfolded which should permit the line to obtain adequate capital for its forthcoming needs.

Stockholders will be asked to approve, on Dec. 6, revisions which will increase the authorized common stock issue from 1,000,000 shares of $10 par value to 2,400,000 shares of $5 par value. This will then permit a two-for-one split in common. Accordingly, the 574,848 common now outstanding will be exchanged for 1,149,696 new common.

▸ **Market Interest**—This stock split may add to the market interest of the security. Many investors are more inclined to purchase low-priced shares and there is less resistance to buying a stock selling at $40 a share than one at $80, even though a lesser number of shares is involved.

American has further indicated that the present 50,000 shares of $4.25 cumulative preferred will be retired Jan. 15, 1945, at $106 a share plus accrued dividends. Actually, little of the sort will occur. As this preferred is convertible into the common at $70 per share or for 1 3/7 shares of common, it will be more profitable for the preferred shareholder to convert into the common. With the common currently selling around $80 a share, the equivalent value of around $115 per preferred share would obtain as contrasted to the $106 dictated by the call price. In effect, the company is "forcing" conversion of the preferred.

▸ **142,858 Reserved**—Thus, provision is made in reserving 142,858 common for conversion of this preferred. While some dilution of the common will occur, it will be justified in retiring the senior equity issue at this time. On completion of this operation, American will have 1,292,554 new common outstanding, assuming of course that all the preferred will be converted. This should give the carrier one of the largest common share capitalizations in the industry, second only to United's 1,500,451 common shares.

There are a number of reasons why American must get its present preferred out of the way. Among other things, it facilitates issuance of another series of preferred which would have been difficult otherwise. Further, it is possible that a new preferred series can be sold with a lower dividend rate. Moreover, the "call" of the old preferred will not require any cash to be paid by the company—provided present market levels hold.

▸ **New Issues**—A new preferred stock issue of 200,000 shares of $100 par value, none of which is to be presently issued, is to be authorized. In addition, 100,000 shares of employee stock is also to be created.

Preferred stock financing among the airlines has provided a very desirable and economical medium through which to raise new capital. While not as yet indicated, it is likely that the new American preferred will also be convertible into common. This provides considerable attraction as not only is the opportunity for participation in the common afforded, but a stable dividend return is reasonably assured. Moreover, while the company may issue a senior equity at relatively low cost, the security is ultimately destined to be reduced or converted into common stock. The fate of the present American preferred is testimony enough. Similarly, PCA called its convertible preferred for retirement in May, 1944 and in this process forced conversion for most of the issue into common.

▸ **UAL Financing** — United Air Lines successfully sold 105,032 shares of $100 par 4½ percent preferred issue last January. This stock is convertible into common at the rate of 3 1/3 common for each share of preferred. Hence, while the new preferred was marketed around par, it is now selling close to $120 per share. Why? Simply because the appreciation in the market price of the common has translated tangible value to the conversion privilege held by the preferred.

The American proposed employee stock is in many respects similar to the management stock authorized for United Air Lines. American would issue to its employees and officers capital stock under terms to be authorized by the board of directors. This issue would be convertible into common three years after date of issuance. (United management shareholders would have to wait about five years before conversion into common could be made). It is presumed that these new shares would be offered to key personnel at favorable levels. This is nothing more than a bonus and must be so regarded. The device of this employee stock, however, affords an added incentive as pride of ownership in the corporation is fostered.

▸ **May Issue 200,000** — Should American decide to issue all of the proposed 200,000 new preferred at one time, at least about $20,000,000 would be obtained. This also would represent the largest piece of capital stock financing attempted by any air carrier and would double the present peak of financing established by United early this year.

It is too soon to anticipate the actual date of the new American financing. Much is dependent on the date of delivery of the new equipment. Moreover, the state of the capital markets will remain as an important underlying factor in determining the marketing time for new securities.

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▸ **Harlow Aircraft Co.** reports net income of $37,635 for the quarter to Aug. 31, or 8 cents each on 454,436 shares, compared with $4,907 or one cent a share in the preceding quarter and $11,521 or two cents each on 541,436 shares in the quarter ended Feb. 29, 1944.

North Atlantic Hearings Contrast World, Domestic Route Sessions

Statistical studies criticized as based on steamship experience and declared not applicable to air transport; arguments expected to terminate this week.

By DANIEL S. WENTZ II

Contrast between an international route proceeding and the familiar pattern of a domestic case was plain as the North Atlantic hearing moved into its second week.

An outstanding difference lies in statistical studies of inter-city travel, usually conspicuous in domestic cases, but largely lacking in the North Atlantic proceeding. Such familiar exhibits as hotel registrations, post office receipts and surface carrier records are not available for most European countries, although the record for trans-Atlantic travel is more nearly complete.

▸ **Exhibits Criticized**—The comprehensive study prepared for the Civil Aeronautics Board by F. H. Crozier is part of the record, but several airline attorneys have cautioned that it is based largely on steamship experience. This, they say, is hardly a reliable index of the potentialities of trans-Atlantic air travel. An exhibit prepared by L. F. Hampel, United Air Lines analyst, was criticized for the same reason.

Another significant feature, absent from domestic cases but of extreme importance in the present proceeding, is the role of national interest and prestige. The Board's map, also part of the record, shows tentative routes the government feels are required for adequate promotion of the national interest abroad, and sets the pattern for certifications.

Most of the eleven applicants have presented their cases, and the hearing likely will end this week.

TWA witnesses, led by the line's president, Jack Frye, asserted that with five Boeing *Stratoliners* recently returned by the Army, the line could, if certificated, begin North Atlantic operations by next Jan. 1. The carrier has many million miles of overocean and foreign operating experience as a contract operator with the ATC.

▸ **Asks Line to Calcutta**—TWA proposes service between the U. S. and Calcutta, joining there with a trans-Pacific link to form an around-the-world route. Frye asked the Board to grant this route to TWA as a competitive yardstick for Pan American, which he feels will be certificated around the world. Frye sees competition among U. S. flag carriers as desirable, but not necessarily on parallel routes. He suggested that the Board's four proposed trans-Atlantic routes be certificated to separate carriers.

▸ **Deferred Freight System**—C. L. Gallo, TWA executive assistant, outlines a deferred freight system similar to that practiced by TACA, a Central American line in which TWA holds a stock interest, by which air cargo would be stockpiled at departure points for use in increasing the load factor on planes whose passenger and express space was not wholly sold. The line would contract to deliver this freight to London on a five-day guarantee. With *Constellation* equipment, deferred freight would move at rates as low as 25 cents per ton mile.

PCA's case was outlined by its president, C. Bedell Monro, whose company proposes trans-Atlantic operations with DC-4 equipment, offering passenger fares at 5 cents per mile, with an additional 1 cent per mile charge for berths. These low rates would be offered on all three routes PCA has applied for —from the U. S. to Moscow, Calcutta and Cairo.

▸ **Northeast's Case**—Northeast Airlines' case for Boston-London and Boston-Moscow routes was presented by S. J. Solomon and Paul F. Collins, president of the line. They disclosed that financing for the proposed international operation would be underwritten by the Atlas Corp., one of Northeast's largest stockholders. Atlas is owned by Floyd Odlum, New York industrialist.

Earlier, American Export had completed its presentation. In the application which resulted in the original certification of Export's routes, the line had asked for terminals within Europe. The Board did not consider the requests at that time because of the Neutrality Act then in force. Consequently, Export's position on the present proceeding is considerably strengthened by the fact that it is now pressing the remainders of an earlier application. It also is asking that its temporary certificate be made permanent and that additional routes be certificated.

▸ **Other Witnesses**—Trans-Oceanic Air Lines, and U. S. Midnight Sun Air Line were to follow TWA, with Pan American Airways due to present its first witness late last week.

Pan American asks extension of its existing certificates to join at Calcutta with a trans-Pacific route extension to form an around-the-world airline, and numerous routes between European countries.

The company's plans contemplate use of the "Type 10" aircraft on the longest flights, a plane which Pan American Airways will make possible a New York-London fare as low as $148. For cargo, the company plans a commodity classification service with rates near 25 cents per ton mile.

ATC, NATS Public Operations Formalized

President Roosevelt last week ordered the Secretaries of War and Navy to permit ATC and NATS planes to carry commercial passengers and cargo whenever approved by the War, Navy or State Department as in the national interest.

The order formalizes a situation which has obtained in a small way since inception of the military air services, but it is expected to result in expanded commercial air services for relief and rehabilitation work and restoration of world trade.

The plan was worked out by the CAB and government departments as an interim measure until commercial airlines are certificated for international routes. High officials in all the agencies concerned said there was NO intention to convert ATC or NATS into permanent commercial carriers.

Warner Stresses New Business As Factor in Post-War Air Traffic

CAB vice-chairman forecasts wide gains in international as well as domestic travel as result of greatly expanded needs for service in first five peace years.

Importance of consideration of newly-created air passenger business as a factor in post-war air traffic is stressed by Edward P. Warner, vice-chairman of Civil Aeronautics Board, in his latest forecast on international air travel, air mail and air cargo.

Warner's view, outlined at the American Merchant Marine conference in New York, is that in five years the ratio of newly-created business in transcontinental air travel will be at least a third, trans-Atlantic as much as 50 percent, to Brazil and the Argentine 60 percent or more, and trans-Pacific as high as 75 percent.

▸ **Air Preference**—Rates of fare are the most far-reaching influence on travel distribution, he says, estimating that with post-war air service standards and rates equal to those for ship travel more than half the pre-war Atlantic travelers will give the air preference, with even a higher diversion for longer trips. This also assumes general economy and trade relationships like those of the past.

Other conclusions:

▸ Political and economic development in Latin America and the Far East may increase business and pleasure air travel to the south and west to half again or twice what otherwise might be anticipated.

▸ There is hope that domestic rates can be reduced by about a third through equipment and operating economy advances in a few years after the war. Cabin or first-class surface accommodations seldom sell at less than 4 cents a mile, often 6 cents or higher; air rates are about 5 cents a mile domestically and 7.8 cents in Latin America.

▸ "If domestic passenger rates are actually reduced to 3 cents per mile," about as low as he dares hope for in the next period of development, "I should still expect trans-Atlantic rates in aircraft with supercharged cabins to stand at 5 cents a mile" with an intermediate stop, and 7 or 8 cents if non-stop between a major European capital and U. S. point. Present trans-Atlantic air fare, with stop in Newfoundland, is about 17 cents per mile.

▸ Rates on the Pacific may be about the same or a little under those on the Atlantic, with South and Central America rates appreciably lower. Domestically, if rail rates remain at 1940 level, domestic air passenger traffic will go up 5 or 6 times. If airline fares from New York to London equal those between New York and Los Angeles, travel between the U. S. and western Europe will be nearly as great as between U. S. coasts. The former however, is unlikely to exceed half of the transcontinental since the fare probably will be 75 to 100 percent higher than that to California. Also, it seems unlikely that travel from the U. S. to below the north coast of South America will amount to more than a third of that between the U.S. and Europe during the next few years while that between this country and the Far East may have a maximum probable volume of one-quarter the European potential or less.

▸ **Year-Round Averages**—Warner hopes for a year-round average across the North Atlantic of 250 passengers a day in each direction; to South America below the north coast, 60 to 80; to the Far East, 40 to 60; Australia, 20 to 30; Hawaii, 60 to 80, and Africa below the north coast, 15 or 20.

The cargo picture is different. Speed is not the prime consideration for a large amount of freight, but there is still room for development of cargo business. A lower cargo rate is to be expected, but the characteristics of air transportation probably will keep it primarily a passenger operation. Availability of air transportation, however, will create some new cargo movement.

▸ **18-Cent Port-to-Port Rate** — An airport-to-airport rate of 18 cents per ton-mile—and perhaps 15 cents with reasonably frequent refueling stops and moderate fuel costs—may be attainable after the war on such services as those to South America. For the trans-Atlantic and mid-Pacific services, however, the minimum for a number of post-war years will probably be a third and perhaps a half higher than this. Warner's most optimistic prediction here is a cargo rate of 22 to 25 cents a ton-mile.

He foresees a total volume of air cargo to and from Latin America in a few years after the war of 50 million ton-miles annually, or 3,000 tons a year in each direction between the U. S. and South America, 6,000 between the U. S. and the Caribbean and Central America.

Annual air cargo tonnages in a few years may reach 10,000 tons to Northern Europe, 5,000 to the Mediterranean area, 1,000 to Africa, 1,500 to Australia and 4,000 to the Far East.

He spoke of letters only in considering mail, since parcel post, periodicals and printed matter are cargo. If surcharges on international letter mail are not eliminated in the post-war period, they at least will be much reduced, with corresponding increase in volume. With new correspondence thus created, it may be expected that total air mail after the war will at least equal total letter mail by air and vessel combined before the war, on perhaps because of the war's effects a little less than the pre-war figure to Europe and substantially more to South America.

On this basis, Warner says, air mail tonnage to various areas would amount generally to 5 to 10 percent of the amounts he estimated for air cargo under most favorable post-war cargo rate assumptions.

Travel Market

Here is the summary of the market for international air travel, air mail and air cargo anticipated for the post-war years by Edward P. Warner, vice-chairman of Civil Aeronautics Board:

▸ "Very large increases" in international air traffic, primarily a business of carrying passengers, although by no means exclusively so.

▸ Much of the increased passenger business will be newly created rather than obtained by diversion from surface vessels.

▸ Air cargo probably will be increased to 10 times pre-war volume or more on routes that already had good air service, and correspondingly high where no such service existed.

▸ Even then, air cargo will remain very highly specialized and selective, representing only a "tiny fraction" of the vast mass of freight the merchant marines of the world carry.

HOW UNITED'S DC-4'S WILL LOOK:

This retouched photo of a C-54 shows how United Air Lines expects its 50 four-engined Douglas DC-4's and DC-6's to look when they carry the company's colors as they go into post-war service on United's coast-to-coast and Pacific Coast system. American Airlines recently showed the press in New York a C-54 on which it had done its own paint job. United earlier was turned down by the Air Transport Command on a similar request and did the photo job instead.

British Plan Big New World Airport

Field near Blackpool to have one 5,000-yard runway and two of 4,000 yards each with additional facilities for flying boats.

One British idea for a trans-ocean airport is announced in a design for a field to lie on the west coast near Blackpool.

As designed by Blackpool Corp. and described by *The Aeroplane*, British air journal, the plan embodies three runways, the main one N. E.-S. W. 5,000 yards, with subsidiaries N. W.-S. E. and N. N. W.-S. S. E. each 4,000 yards. Parallel taxiways would connect with these at 550-yard intervals. Flying boat facilities would be available.

▸**Feeder Service Runways**—Original plans suggest three satellite runways in the triangle formed by the main runways, to be used as a separate subsidiary airport for feeder service use by British and European airlines. While such an arrangement might be desirable from the space standpoint and speed of connection between domestic and overseas planes, approaches to the inner airport would cross the main runways, which might prohibit such a plan. Designs have been approved by the Blackpool Town Council and from the technical point of view by the Air Ministry.

Cost would run about $124,000,000. Construction would be in three phases in order to make use of the port as soon as possible.

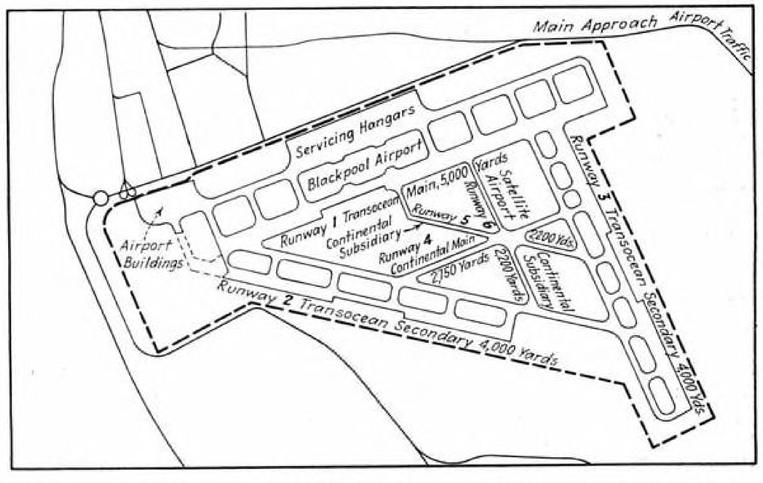
Tax Study Group Of CAB to Meet

Advisory committee to the Civil Aeronautics Board in its investigation of multiple state taxation of airlines will hold its first full meeting in Washington, Nov. 20, called by Chairman Oswald Ryan, member of the CAB.

Another step in the study has been appointment of Prof. Thomas Reed Powell, of Harvard Law School, a leading authority on constitutional law, to aid the Board and its advisory group.

▸**Headed By Mitchell**—The investigation is being directed by George W. Mitchell, tax economist of the Federal Reserve Bank of Chicago, whose special staff has called on the airlines for information on the various issues involved.

There also were staff conferences with state tax officials during a recent St. Louis meeting. In addition, Ryan consulted with various tax experts in a number of western states on a recent tour.



Trans-Ocean Airport Proposed for England's West Coast: *The above sketch shows Blackpool proposal for a trans-ocean airport on the West Coast of North England. Main runway at top would be 5,000 yards long and each of other two 4,000 yards. They would be paralleled by taxiways at frequent intervals. A subsidiary airport for feeder line use would be within the main runway triangle. Drawing appeared in* The Aeroplane, *British magazine.*

PAA's 'Type 10' May Be *Constitution*

92-ton plane designated for trans-oceanic service is believed to be new giant Lockheed model.

Details of the so-called "Type 10" 92-ton plane Pan American Airways proposes to use in trans-oceanic operations, as given in equipment exhibits prepared as part of its presentation in the North Atlantic route case, definitely indicate it may emerge as the now highly secret Lockheed *Constitution*, although Pan American did not name the manufacturer.

The data shows that the Type 10 will weigh 118,794 pounds empty equipped. It will be designed for 149 passengers, a number which will be reduced to 128 day passengers in the North Atlantic service. At night the ship is to be equipped for 89 sit-up passengers, 12 berths and 9 staterooms [illegible] occupants each.

▸**Four 3,500 Hp. Engines** — The plane's four engines will develop a takeoff horsepower of 3,500 each, with a rated horsepower of 2,800. Cruising at 25,000 feet, the ship is designed to operate at 288 mph. at 64.3 percent horsepower. Design permits access to the engines during flight. The planes will be equipped with pressurized cabins.

Other data disclosed include:

- ▸Gross takeoff weight, 184,000 pounds.
- ▸Gross landing weight, 160,000 pounds.
- ▸Eleven crew members.
- ▸2,082 cubic feet cargo space.
- ▸Payload, summer operation westbound from Shannon, Eire, to Boston, 23,416 pounds.
- ▸Advance estimates place the cost of the plane at $2,029,488. Pan American plans call for eleven of the ships in the North Atlantic service.

At a press conference, Pan American officials declined to identify the manufacturer, saying this information was restricted. They said the contract for Type 10's, although not complete in detail, does not give the company exclusive rights to the plane. Expectation is Pan American will get first delivery, however.

▸**17th Anniversary** — This month marked the 17th anniversary of Pan American's international operations. It also saw announcement by Douglas Aircraft Co. that the 26 DC-7's, on which Pan American disclosed some time ago it has made the initial payment, will cost $40,000,000.

Douglas disclosed that each of the four engines powering the DC-7, of which the basic plane is under construction at Douglas' Long Beach plant, will have even greater displacement than the 2,100 hp. Pratt & Whitney Double Wasp.

The ships are to have two cabins, one for 72 passengers and the other 36. Manufacturer describes it as seven times larger than the DC-3.

CAB Hears Argument On K.C.-New Orleans

Expected to result in Shreveport-Kansas City link to close large gap in Mississippi Basin.

Civil Aeronautics Board last week heard oral argument by applicants and interveners in the Kansas City-Tulsa-New Orleans case (Docket 651 et al.) which probably will result in a link between Shreveport and Kansas City to close a large gap in the air transport pattern of the Mississippi Basin.

Delta Air Corp., Mid-Continent Airlines and National Airlines are applicants for connections between New Orleans and Kansas City via various intermediate points, but Delta appeared before the Board with the backing of Examiner Frank A. Law, Jr., who recommended in his report that Delta's AM 24 be extended by 456 new route miles to connect Shreveport with Kansas City.

▸**National Turned Down**—Applications by National Airlines in the proceeding sought to extend that carrier's system west and north of New Orleans, but these were turned down by the Examiner. Counsel for the airline asked the Board to find that the New Orleans-Kansas City route could support two carriers.

National's application was the basis for a strong protest to the Board by counsel for Eastern Air Lines that National's successful expansion program was "strangling" Eastern. He said that, in the New York-New Orleans service, National was making the trip in 58 minutes less time than that required by Eastern's planes.

Representatives of cities in Kansas and Arkansas urged the Board to approve additional air service in their areas, pointing out that existing carriers in the area were chiefly East-West operators who could not fulfill the need for north-south service.

Air Service to Smaller Cities Topic at Aero Institute Talks

Methods of cutting down time losses in landing operations and use of gliders in reaching communities now lacking aerial communications discussed at Washington meeting.

Air service to smaller cities received special consideration in two papers presented before the Institute of the Aeronautical Sciences at its Washington meeting.

In discussing means of decreasing airline landing time losses in airline operations, James G. Ray, vice-president of Southwest Airways Co., expressed doubt that successful feeder line operations will be possible if landing stops continue to require the time they do now on trunk airlines.

▸**Gliders**—Maj. Albert E. Blomquist, acting chief of AAF's glider section, contended in the other that gliders can bring air service to many cities and towns on the nation's airways that do not now receive it.

Ray's paper, read by Halsey R. Bazley, president of All American Aviation, declared that, where landings are made with 50-mile frequency, they must be limited to 5 min. each if schedules are to compete with ground transport. He sees two possible ways of speeding schedules: faster planes and decrease of landing time lost, with the latter holding most promise of economy and increased service.

▸**Design Changes** — Here advantages may come from changes in aircraft, which he feels are now inconvenient for passengers and particularly mail and cargo, from airport layout, design of special loading and servicing equipment, and faster operating procedures.

As helpful changes, he suggests speedup in refueling processes, possibly by use of smaller containers than the present tank truck; reduction of engine starting time, perhaps by keeping them running or development of a method to disconnect the propeller at idling speeds; and time savings in getting to and away from the loading ramp, perhaps with aid of a tricycle landing gear with steerable nose wheel.

▸**Tricycle Gear Aids** — Freedom which the tricycle landing gear gives in direction Ray considers one of the biggest gains coming up in flight and taxiing procedures, with more landings on course, saving time now spent in approach traffic circles.

In air handling characteristics, he feels it important that glide path be controllable through a wide range of angles, and advocates a means of drag to kill excessive speed if the ship is to be landed exactly where wanted each time.

Belief was expressed that a single runway should be enough for smaller towns, and not more than two for larger towns and smaller cities. Ray acknowledges that pilots feel that extra runway length is "all to the good," but believes it leads to loss of time in taxiing to takeoff position.

▸**Large Parts** — His arguments against large airports do not extend to transoceanic and transcontinental terminals, though he feels these are visualized as larger than actually needed. On the basis of 18 months of feeder service operation for the Air Transport Command, he feels that small and medium towns of 10,000 to 100,000 will find 5,000 to 10,000 ft. runways a hindrance rather than a help.

Large airports, he contends, are expensive to build and maintain and part of the cost will bear on the airlines; they have to be located farther from town, and time is lost in getting a schedule through a landing station.

Major Blomquist feels that gliders and pickup aircraft could give "ample service" to cities where the present type of service would require prohibitive expenditures for airports and other facilities.

▸**Air Trains and Pickup**—Citing advantages of air train operations and pickup equipped cargo aircraft, he said full exploitation of cargo gliders would require their movement from small cities to larger "collection centers" by pickup tugs. Use of gliders would also permit operation of ground stations with fewer employees than possible under present type of operations. He also mentioned low capital investment, reduction in overhaul and maintenance costs through a smaller number of powered aircraft, reduced ground installation costs, and broader service.

With suitable equipment, he forecasts a maximum ton-mile cost of 15 cents in air train operations, and believes deadweight pickup and straight cargo operations to be "equally economical."

His discussion encompassed possible glider use in Canada, Russia, Central and South America, and inaccessible areas elsewhere. As glider service advantages to undeveloped or new sections of country with poor ground transport, he suggested gliders especially equipped as emergency hospitals, dental and health clinics, emergency power plants, fire fighting and disaster units, or even mobile grocery and drug stores.

▸**Military Experience**—Experience gained in military operations, Major Blomquist says, is sufficient to indicate possible commercial applications of gliders and establish design criteria for cargo gliders.

Other subjects taken up at the Institute included aerodynamics of flight load factors in relation to safety regulations, by Hugh B. Freeman of Consolidated Vultee Aircraft Corp.; New York's Idlewild airport, by Jay Downer, consulting engineer; developments in air traffic control, by Glen A. Gilbert, chief of CAA's air traffic control division; emergency equipment for commercial transoceanic flight operations, by William H. Hall, trans-Atlantic division engineer for American Airlines; and lighting equipment for adverse weather operations, by Maj. W. T. Harding of the Air Corps, assistant chief, electrical branch, equipment laboratory, Wright Field.

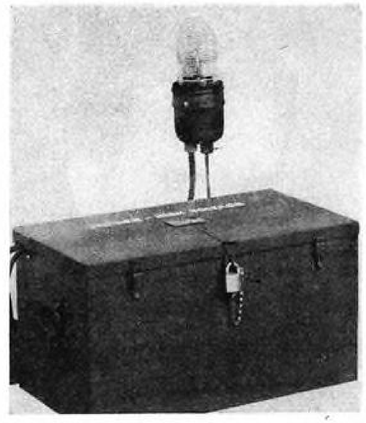
Contributions

A total of $164,800 for engineers' meeting facilities at San Diego's new airport center has been made to the Institute of the Aeronautical Sciences by aircraft companies and others in that area. The gifts came from Consolidated Vultee Aircraft Corp., Rohr Aircraft Corp., Solar Aircraft Co., Ryan Aeronautical Co., Langley Corp. and individuals.

Shorter Stops

A stop-watch check on a number of trunk airline landings, James G. Ray told the Institute of the Aeronautical Sciences at its national air transport meeting, showed an average time between the time the wheels touched in landing until they left the ground in takeoff of about 20 minutes.

He said it should be possible to cut this to five minutes, except for refueling stops, where it should take not more than eight.



NEW GE BEACON:

General Electric Lighting Division has designed this portable flashing beacon for identification signaling at temporary Allied airports. It weighs a third and uses a third of the power required by a stationary airport rotating beacon but GE says the coded flash it produces has such split-second brilliance its exact candlepower cannot be measured.

New Flight Coupon Submitted by UAL

A new flight coupon to simplify interline ticketing operations has been submitted by United Air Lines for study by other domestic lines.

The arrangement would eliminate necessity for filling out a long string ticket by stapling into book form flight coupons, auditor's stub, clearing house record and passenger's receipt.

▸**Only One Stub Filled Out**—With carbons, only one stub need be filled out by the ticket agent. United's auditor of revenues, George Fleming, who devised the plan, claims the proposed ticket can be filled out in 40 seconds, one-fifth the time now required, gives complete information on passenger routing and fare, speeds the dispatch of passengers and facilitates refunds or rerouting as needed.

The suggestion was made before the treasurer's conference of the ATA in Minneapolis.

Braniff Forms New Airmail, Cargo Unit

Braniff Airways, with its sights trained on the rich post-war potential in air cargo, last week announced formation of a new airmail and air cargo division, to be headed by Guy M. Springer, Jr. Duty of the newly created division will be to develop a complete cargo program for the line, putting it in a position to attract all types of freight, express and mail shipments as soon as the war-born shortage of flight equipment is eased.

▸ **Plans Extension** — Braniff also plans to extend its air cargo service to the international routes it has applied for and over the system of Aerovias Braniff, S. A., a Mexican carrier which Braniff Airways proposes to acquire subject to CAB approval. Pick-up and delivery service in the U. S. will be handled by the existing domestic air express system, officials of the line say.

Before his appointment as airmail and air cargo traffic manager, Springer was assistant to Charles E. Beard, Braniff's vice-president in charge of traffic.

Guy M. Springer, Jr.

Latin American Port Program Rivals U.S.

Construction expands rapidly; see 2,100 civil ports by 1945.

Airport construction in Latin America has expanded almost as rapidly as it has in the United States. Norris M. Mumper, director of aviation in the Office of the Co-Ordinator of Inter-American Affairs, estimates that at the end of 1944 there will be approximately 2100 civil airports, of which between 300 and 400 will be Class III or larger.

The exact number of Class IV airfields, included in this figure capable of accommodating the largest transport aircraft now in use, is withheld for security reasons.

▸ **Expansion Southward** — American airlines seeking to expand southward will doubtless be able to benefit from the progressive airport programs being put in motion by other American republics. In Peru, a government corporation, initially capitalized at $1,538,000, has been created to organize and manage airports. Chile has authorized airport expenditures of $646,000.

Brazil, Nicaragua, Paraguay, Ecuador and Mexico also are projecting airport construction and improvement.

CAL Earns $126,305

Report by Continental Air Lines for six months ended June 30, 1944, shows net profit after taxes of $126,305. Passenger miles totaled 9,237,915, an increase of 1,395,691 over the last six months of 1943, and passenger revenue was up 17.7 per cent to $457,276.79.

SHORTLINES

▸ American's foreign commerce will increase vastly through air transportation, predicts Eugene E. Wilson, vice-chairman of United Aircraft Corp. and chairman of the board of governors of the Aeronautical Chamber of Commerce. He ses the airplane as complementary rather than competitive to land and water transport.

▸ A series of aviation lectures on "Skyways Today and Tomorrow" has started at Cleveland, to run for nine weeks under joint sponsorship of Cleveland College, the Cleveland Press and the local chapter of National Aeronautic Association.

▸ Pan American's Pacific Coast base was moved from Treasure Island to San Francisco Municipal Airport without a flight cancellation. Barges, trucks and moving vans were used. PAA had been at Treasure Island 5½ years.

▸ Forty and one-half hours after leaving Rio de Janeiro, a chartered Aerovias Brasil plane arrived recently at LaGuardia Field. Passenger was Sir Herbert Couzens, president of Brazilan Traction Co., who was flown to New Cork with a physician and two nurses for medical treatment.

▸ Work on night lighting facilities at the Erie, Pa., airport, whose officials expect it to become an important gateway for U. S.-Canada traffic and collection point for overseas passengers, is proceeding rapidly under a $9,500 contract for control, contact and obstruction lights. Civil Aeronautics Administration is providing the funds and advice on the installations.

▸ Some air carriers who have expressed interest in American Airlines' new airfreight arrangement privately are skeptical about the long-range practicability of American's plan to contract with individual firms for ground hauling. They contend that, next to the Postal Service, the Railway Express Agency is the largest pick-up and delivery organization in the U. S., and that to supplant its network with a system of indivdual contracts may not be the best way to handle the ground hauling problem.

▸ Northwest Airlines' September record of 20,766 revenue passengers was the highest for any month in its history, and third consecutive monthly high.

▸ United Air Lines is circulating a questionnaire to patrons and prospective passengers asking for ideas on fittings for post-war DC-4's and DC-6's. Officials say the answers will have a large influence on future interior design of United's planes.

▸ Braniff Airways reports that its planes now fly more than 16,000 miles daily. Revenue miles in September totaled 555,843.

Goose Bay Airport Leased by Canada

Canada, it was disclosed at Ottawa, has a 99-year lease on the site of the Goose Bay Airport in Labrador, which Canada built in 1941 and 1942 at a cost of $25,000,000, the lease formalizing an understanding reached in 1941 permitting use of the base for military purposes.

▸ **Joint Use to Be Discussed**—Use of the base by Canada for Civil and commercial transportation will have to be decided between Canada, Newfoundland and Great Britain within a year of the end of hostilities. The base is operated by the Royal Canadian Air Force and is used by the United States Air Transport Command and the Royal Air Force Transport Command as well as by the RCAF. The base measures 10 miles by 12 miles and has developed as a key airbase on international traffic routes and is expected to play an important role in post-war commercial international air traffic. It was long on the secret list.

PCA to Rehire Vets

Pennsylvania-Central Airlines' plan to speed reemployment of its men returning from the armed forces includes free airline transportation from any PCA point to Washington, when space is available; enrollment on the payroll the day the man returns to Washington headquarters, if he is willing and able to accept employment, and payment of his immediate expense until he is so enrolled.

▸ **Seniority** — President C. Bedell Monro said effort will be made to give the returning veteran his former position or a better one, with his time in service accruing to his seniority. Other veterans will be given preference as new employees are hired under PCA's expansion program, which may mean a doubling of personnel in the near future under present plans.

St. Louis-Cleveland

American Airlines applied to the Civil Aeronautics Board last week for a 489-mile segment of new route to link St. Louis with Cleveland via Indianapolis. As an alternative, American suggested the route be granted as an extension of AM 21, now terminating at Cleveland. The route would cut diagonally across an area in which TWA has been operating and parallel that carrier between Indianapolis and St. Louis.

Airline Revenues Off

Net operating revenues for 18 domestic airlines, including All American Aviation and Hawaiian Airlines, Ltd., dropped from $30,604,894 in the year ending July 31, 1943, to $27,880,919 for the same period this year, according to statistics prepared by the Civil Aeronautics Board. Gross operating revenues, for the same periods however, jumped from $115,130,053 in 1943 to $136,957,398 for the period just ended.

The figures reflect increases in passenger and mail revenues, and a decrease in freight and express revenue.

CAB ACTION

● A supplemental Civil Aeronautics Board consolidation order adds dockets filed by All American Aviation, New England Airways, Inc., Norseman Air Transport, Page Airways, Inc., and Springfield Feeder Lines, Inc., to the New England feeder case (Docket 399 et al.). There are now 27 applicants to be heard in the consolidated proceeding beginning Dec. 4. Department of Justice, the Commonwealth of Massachusetts, the New Hampshire Aeronautics Commission, American Airlines, TWA, United Air Lines, New England Airlines, Inc., and the State of Rhode Island have received permission to intervene. The case is assigned to CAB Examiner Barron Fredricks.

● At request of United Fruit Co., the Board has ordered withheld from publication the statement of consolidated income for the corporation and its subsidiaries for the fiscal years 1939 to 1941. The consolidated income statement was introduced as an exhibit in the Latin American case by Public Counsel. The Board ordered it withheld because, while its publication was not required in the public interest, it would adversely affect the corporation.

● A supplemental CAB consolidation order for the Texas-Oklahoma case (Docket 337 et al.) includes in that proceeding applications of Lone Star Airlines Co., E. R. Leonard, Texas Bus Lines, and an amendment to an application of Texas-New Mexico Airlines. Permission to intervene was granted to Delta Air Corp., Missouri-Kansas-Texas Railroad Co., and Missouri-Kansas-Texas Railroad Co. of Texas.

● Public counsel has requested consolidation of application of Northeast Airlines for consolidation of AM 27, AM 65 and the Mayflower route with the New England proceeding (Docket 399 et al.). A prehearing conference has been held on the Northeast application.

● Board extended until Jan. 31, 1945, the temporary permit under which Royal Dutch Airlines (KLM) conducts operations into Miami. This is the fifth extension granted by the Board. KLM operates into the U. S. on a route between Curacao and Miami.

● Eastern Air Lines filed schedules with the Civil Aeronautics Board for opening service over its newly granted New York-Boston route Nov. 1, with six trips daily. The line has filed notice of intention to serve Boston through use of the General Logan Airport.

● Expreso Aereo Inter-Americano, S. A., has asked CAB for a three-month extension of the temporary foreign air carrier permit under which it operates into Miami from Havana. The present authorization expires Oct. 1.

The Board has renewed this permit several times in the past and is expected to do so again. If renewed, the permit will allow operations until Jan. 31, 1945.

Compania Aviacion "Faucett," S. A., has petitioned for permission to intervene in Pan American-Grace Airways Docket 1403, an application for a route between Lima and Iquitos, Peru. Faucett already operates in a territory similar to that which Panagra seeks to serve.

CAB SCHEDULE

Nov. 1. Hearing in the West Coast Case (Docket 250 et al.) before Assistant Chief Examiner Francis W. Brown and Examiner F. Merritt Ruhlen in the Civic Auditorium, San Francisco, Calif. Postponed from Oct. 16.

Nov. 8. Preliminary briefs due in proceeding for approval of acquisition of Aerovias Braniff, S. A., by Braniff Airways. (Dockets 1360 and 1373).

Nov. 13. Date for exchange of exhibits in the New England feeder case. (Docket 399 et al.). Postponed from Oct. 26.

Nov. 15. Rebuttal exhibits due in Florida cases. (Docket 489 et al.). Postponed from Nov. 1.

Nov. 15. Exhibits due in applications of Ellis Air Transport and Ketchikan Air Service for additional service in southeastern Alaska. (Docket 876 et al.).

Nov. 17. Hearing at Juneau, Alaska, on applications by Alaska Coastal Airlines for routes between Juneau and Skagway and Juneau and Gustavus, Alaska. (Dockets 878 and 1539).

Nov. 20. Hearing at Ketchikan, Alaska, on application of Ellis Air Transport and Ketchikan Air Service for additional service in southeastern Alaska. (Docket 876 et al.). Postponed from Sept. 25.

Nov. 23. Deadline for rebuttal exhibits in New England feeder case. (Docket 399 et al.). Postponed from Nov. 13.

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

Dec. 4. Preliminary briefs due in Latin-American proceeding. (Docket 525 et al.).

Dec. 4. Hearing in the New England feeder case (Docket 399 et al.) at Washington, D. C.

Dec. 10. Exhibits due in South Atlantic route case. (Docket 1171 et al.). Postponed from Oct. 16.

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

Dec. 23. Exhibits due in the Pacific proceeding.

Jan. 10, 1945. Hearing date for South Atlantic case. Postponed from Nov. 1. (Docket 1171 et al.).

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

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

Congress and an Air Policy

AFTER ELECTION it will be imperative that an American air policy begin to take form. The Administration has taken the initiative in calling the forthcoming international aviation conference. But there are also domestic problems which demand attention. The task can be started now in Congress.

On Capitol Hill will depend in the final analysis the future of civil, as well as military aviation. At this point, no segment of aviation knows where it will stand once the day of the warplane wanes and aerial commerce takes over.

The airlines have no idea what our post-war commercial air pattern will encompass. Potential feeder airlines continue to pour money into costly surveys before pleading in Washington for the right to serve hundreds of communities. Fixed base operators have no idea of conditions they must face. There is no provision to continue civilian air training of youth, and we risk losing a vital reservoir of defense strength. The private flyer hopes simpler regulations will continue, and the younger groups feel some inducement should be offered them to maintain flying time in the interest of national defense. The aircraft manufacturer worries about surplus aircraft, and wonders whether he will operate at 5 percent of his present level, or 15 percent, or whether he will be one of those who cease to exist.

All of this stems from a lack of policy, which cannot be corrected next month or perhaps next year. But the final responsibility is that of Congress. It cannot be left entirely to the Administration, nor to a group of representatives or a few Senators, or to either House or Senate.

There should be a select committee sitting jointly and numbering among its members men who can view the picture objectively. It should be selected and start its work before the war ends and the economy wave begins.

If this is done, the new Congress may have presented to it the groundwork for an organized formulation of policy. Aviation's interests and the government agencies regulating it will have a framework within which to move. The states may have before them a clearer delineation of federal and state powers.

Today all aviation bills are dammed up in committees, with no action apparent to move them because they are too controversial. Probably not one of them has a chance in present form.

Some action must be taken if aviation is not to receive a staggering blow as it attempts to measure up to its responsibilities and opportunities in peace years. It is the duty of Congress to break this stalemate.

Passing Pilot Physical Exams

THOUSANDS OF WOULD-BE PILOTS HAVE been tossed out of aviation by restrictive medical regulations and examiners. It is reported that CAA medical files are clogged with 7,000 rejection notices.

It now appears that CAB will order into effect simpler medical regulations about the first of the year which will ease requirements for private pilots and eliminate an annual examination. It probably will mean that the capable family physician, who knows the applicant and his past medical history, will be allowed for the first time to pass on potential pilots every two years rather than a limited number of specially designated examiners every year. This is a cheering prospect.

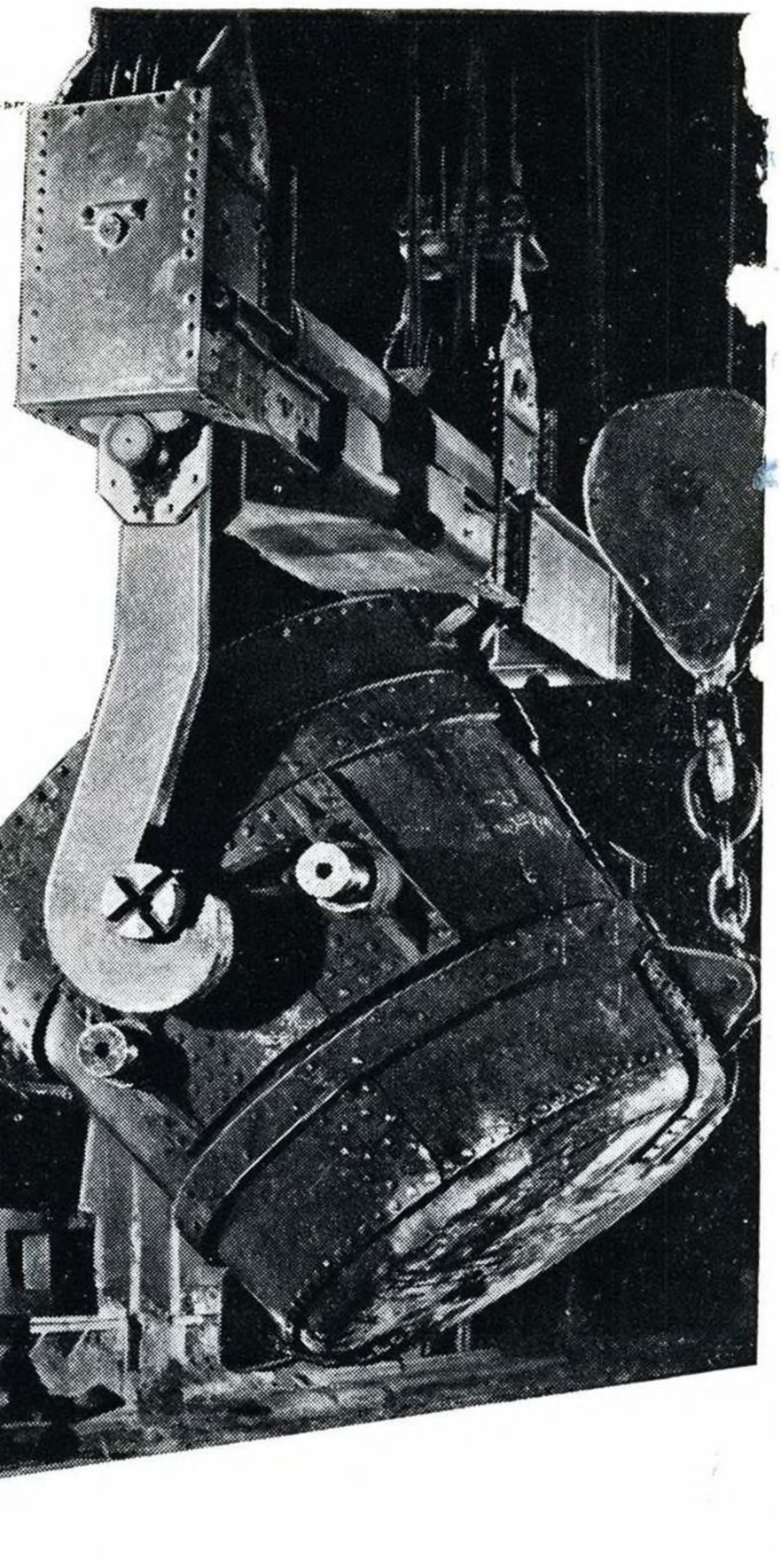
Even before this change is effective, however, some suggestions may speed the present laborious, outmoded procedure:

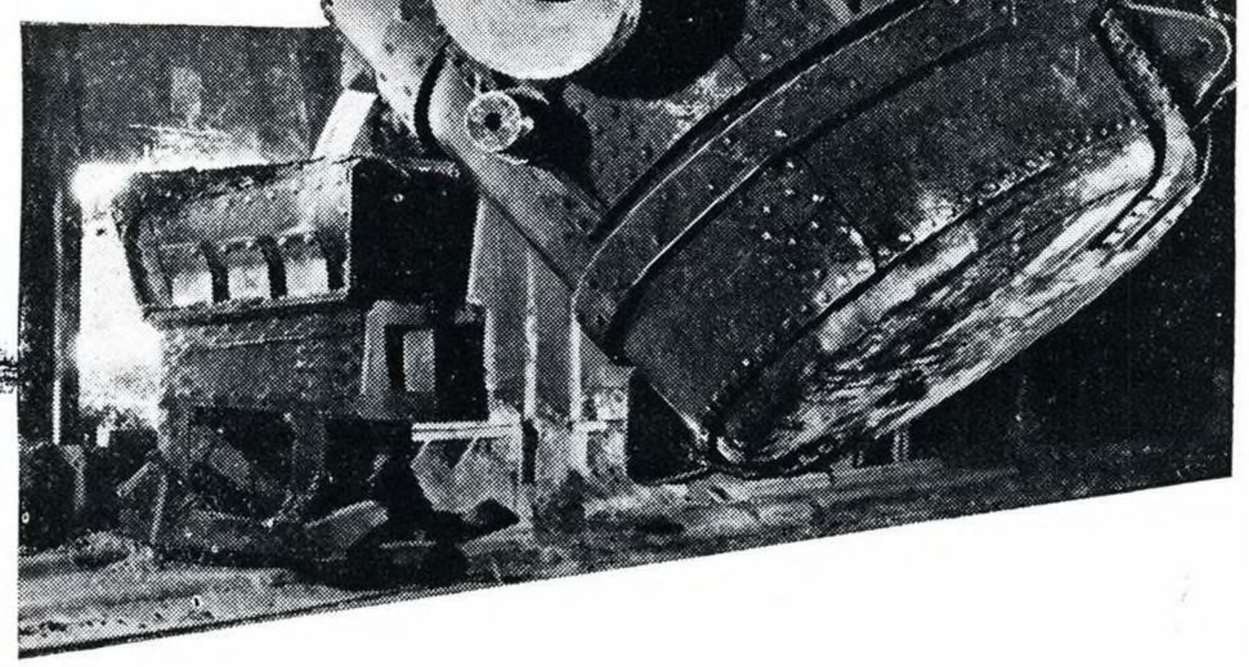
Applicants who have been discharged from the Army or Navy because of physical disabilities must present examiners with official papers stating the reason for the discharge, otherwise CAA may hold up action on the theory that the disability may make the man a dangerous pilot.

New applicants are urged to take their physical examinations before they invest in ground or flight training, or purchase aircraft. This will prevent financial loss in event of failure to meet physical standards. Applicants or pilots who fail may have supplemental check-over by the same doctor after remedial action has been taken, or go to another examiner at once, but they must report the last previous examination. Applicants who are rejected should write to the Civil Aeronautics Administration's medical division in Washington, asking why they were rejected, if the examiner did not inform them, and asking what can be done. They should also consult an experienced instructor or operator for advice. Probably hundreds of applicants, once rejected, have never made another effort to pass, because they did not realize that by persistence in taking their case to Washington they still stood some chance of ultimate approval. They should try again.

ROBERT H. WOOD

Flying the New West





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