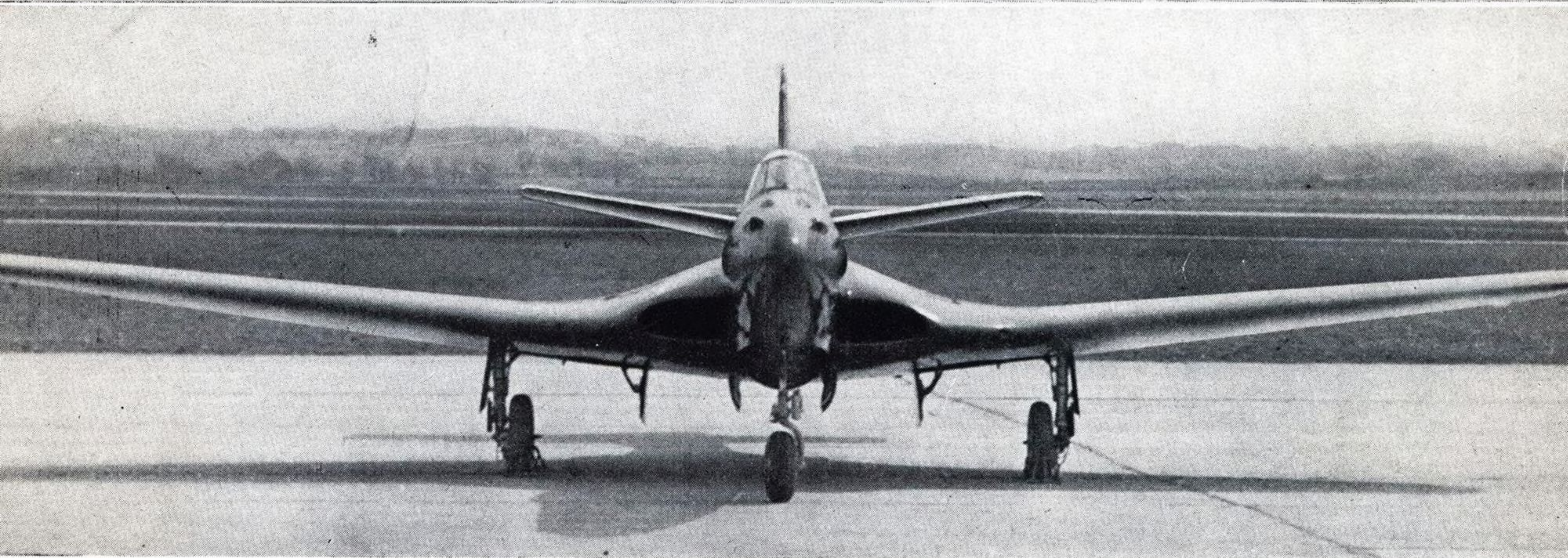
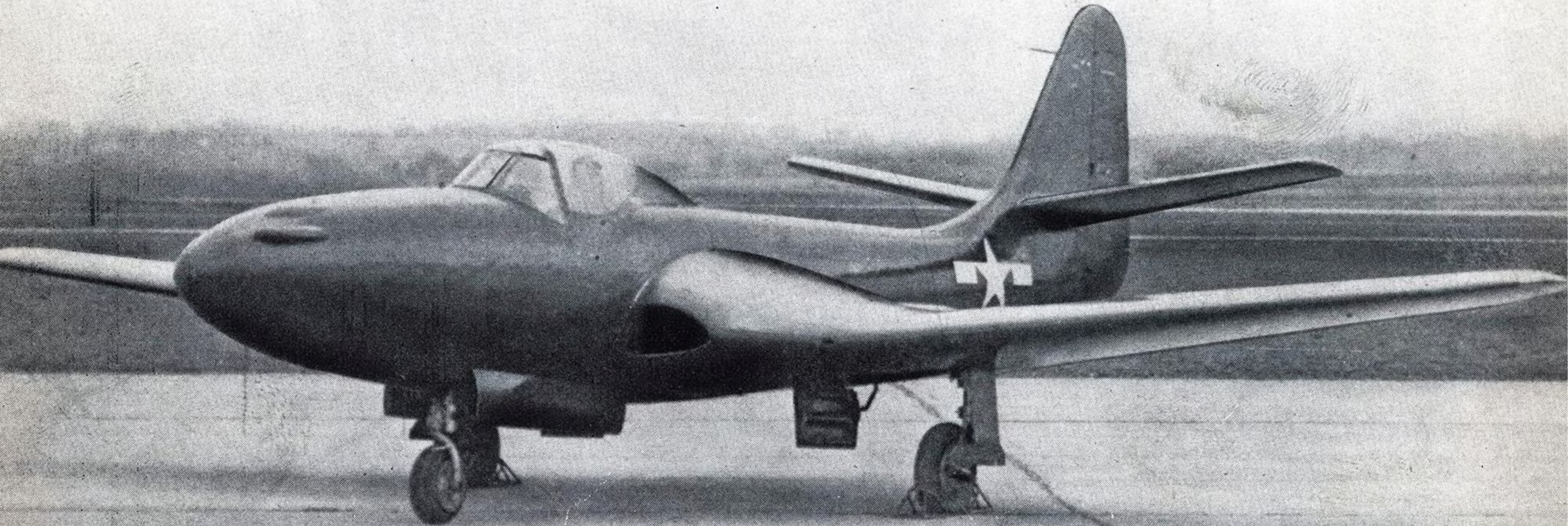


Aviation News

McGRAW-HILL PUBLISHING COMPANY, INC.

JANUARY 14, 1946



Carrier-borne Jet Plane: *This FD-1 Phantom, designed and built by the McDonnell Aircraft Corp. is the first carrier-type aircraft powered exclusively by jet engines. Already extensively flight-tested the Phantom has a service ceiling in excess of seven miles and is the first Navy fighter to attain speeds of 500 mph. Powered by two axial-flow Westinghouse turbo-jets built into the wingroots, the Phantom has a range of over 1,000 miles. (See Headline News)*

Miami Air Show Found Lacking On Many Points

Weather cuts lightplane attendance; personal aviation gains little.....Page 7

AIA To Map Joint Overseas Service Organization

Export Committee will present plan for maintenance of surplus craft.....Page 9

New Cessna's Price Likely To Jolt Other Firms

125-mph. lightplane will sell for \$2,495, well under cost of similar craft.....Page 13

New Civil Aviation Parley Opens in Bermuda

U. S., Britain apparently enter conference set on having own ways.....Page 31



**Unnamed, Unknown,
Unsung but Still... 1st**

After compiling more "firsts" than any of its combat sisters, the Honeywell test bomber, a B-17 Flying Fortress, has been officially grounded, never to fly again.

Stripped of turrets, guns and armor plate, the bomber, designated as 41-19210, but called 210 by its crew, is being transferred to the University of Minnesota's Aeronautical Engineering Department by ATSC after serving more than three and one-half years in Minneapolis as the dogship for a long list of automatic control devices jointly developed by technicians of the company and the Air Forces.

The Honeywell test ship was the

1. First bomber equipped with an electronic automatic pilot
2. First plane equipped with an automatic leveling bombsight
3. First plane equipped with a steering motor tying in radar with flight control
4. First plane equipped with an electronic formation stick
5. First plane equipped with electronic, four-engine turbo supercharger control and many firsts in blind landing equipment.

From these accomplishments you can readily see how Honeywell creative engineering can and will help you improve performance of all types of aircraft.

The Honeywell program includes a complete flight research department, test aircraft, and thousands of dollars worth of testing equipment. In addition, trained application engineers, with broad experience in the use of aeronautical and industrial controls, will collaborate with aircraft manufacturers and airlines in developing the most practical equipment for each specific problem. Their work includes consulting service and flight testing at the customer's plant. These men can help you in the application of Honeywell equipment to your control problems.

Minneapolis-Honeywell Regulator Co., Aeronautical Division, 2669 Fourth Avenue So., Minneapolis 8, Minnesota. Branches and distributing offices in all principal cities.




Makers of the famous MH Electronic Autopilot used on AAF four-engine bombers

THE AVIATION NEWS

Washington Observer



JET TYPES—Fact that Army and Navy are pursuing different paths in the development of jet engines isn't too startling. The same thing was done with conventional engines under an agreement that the Navy would concentrate on air-cooled, Army on liquid-cooled. Result was this country went into the war with both types highly developed.

SULLIVAN AGAIN—Despite talk of Edwin Pauley getting the Navy secretaryship when Forrestal steps down (which may come if agreement is reached on integration) there is considerable topside betting in Washington that the post will go to John L. Sullivan, now Assistant Secretary of the Navy for Air.

*

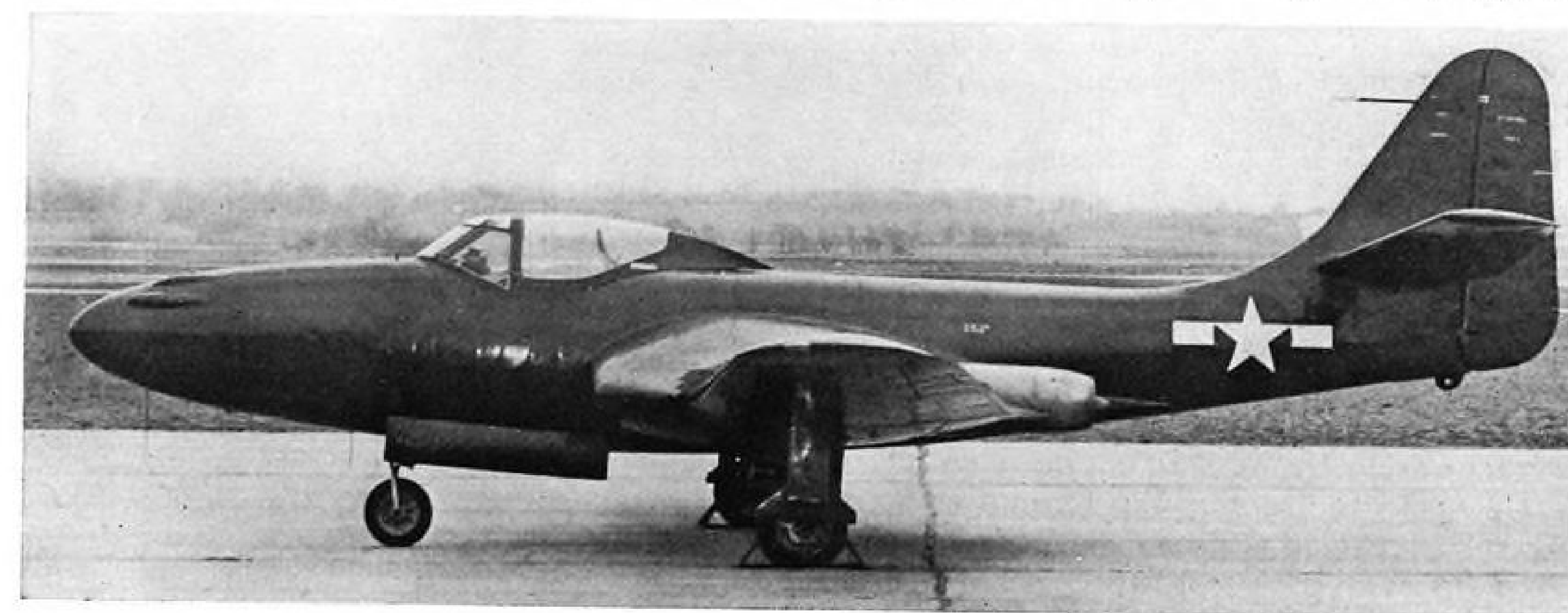
INTEGRATION AND UNIFICATION—Some quarters in Washington believe the services will come up with an integration program that will replace the unification proposal of the Army and settle the bitter battle sure to come if something isn't worked out. AAF is swallowing some bitter pills in the War Department and is reported ready to pull out in favor of an integration in which it would get its independence. General outline of the new plan: three departments, Army, Navy and Air, with an added department or joint agency for common procurement, industrial mobilization planning, hospitals, warehousing, etc. Joint chiefs of staff would remain. Matter is being handled gingerly, will leave some unifiers out on a limb.

PROFITS—The Vinson-Trammel Act, limiting profits on aircraft and Navy ships and parts thereof, is in effect again with repeal of the excess profits tax. The Act had been suspended by the Revenue Act of 1940, which substituted the tax. HR-4622, introduced by Vin-

son himself to rescind the Act, is pending but is not being pushed. No hearings have been scheduled. The Act calls for a limit of from 10 to 12 percent profit on all contracts over \$25,000 for Army and Navy airplanes and Navy ships, and components—including cost-plus-fixed-fee contracts. Contracting agents have been advised of reactivation of the law. Costs in Army contracts are based upon T. D. (Treasury Division) 5000, a guide for calculating costs under the Vinson Trammel Act. Costs in Navy contracts are based upon the "green" book, "Principles for the Determination of Costs," which the Navy regards as a streamlined interpretation of T. D. 5000.

STORMS AHEAD?—Reconstruction Finance Corp. officials are waiting to see what form the relations between Lt. Gen. Lloyd B. Gregory and the Surplus Property Administration will take when Gregory and the War Assets Corp. take over surplus disposal operations Jan. 15. RFC people have been complaining that SPA has not been content with setting policies—as it is supposed to do under the act—but that it also has been trying to control actual operations. Gregory's successful tenure as Quartermaster General gives no indication that he would welcome SPA "interference" in a job over which he is supposed to be complete boss.

UNWANTED ENGINES—Symptomatic of the engine disposal headache faced by RFC is the fact that although four well-known makers of low-powered engines have negotiated agency agreements, the leading manufacturers of large engines—Curtiss-Wright and Pratt & Whitney—are having no part of the situation. Largest number of engines in surplus are the big ones.



Side view of the McDonnell Fd FD-1 Phantom, Navy jet fighter (see Headline News)

EVERY LAKE AN AIRPORT

Plethora of Landing Spots

Some day, there may be an airstrip every few hundred miles around the world. How long that will be nobody knows—but authorities agree it will take at least a few generations. Construction of airports, even in the United States, is lagging way behind the potential uses of the flying machine.



Self-evident, therefore, is the vast utility of the amphibion—which can land and take off on both firm ground and water. For there are tens of thousands of water "bases," within a few hundred miles or less of each other, all over the world. Safe it is to say that any amphibion with a thousand-mile range or more can get to and from any spot on this globe without benefit of airports.



Problem of Troubled Waters

There is a considerable "backbone" in waves when they are hit hard. An airplane needs speed to take off, and reasonably fast forward motion to land without damage. Primary problem of day-in and day-out use of amphibions,

therefore, is the ability to take waves.

Weight and strength are inseparable. Since an amphibion hull must be big enough to float the plane, it represents a big load—all the more so, when that hull has to be strong enough to slap sizeable waves out of its way.

To build a practical amphibion, you must be both an airplane and a speed-boat engineer. And if you want load capacity and range after allowing for a strong, seaworthy hull you have to be good at both kinds of engineering.

Amphibious Transport

Engineers and aircraft workers at Columbia's Valley Stream plant proved



their ability to build a rugged amphibion which could go places and do things which other planes could not. Columbia "Ducks" performed notable war service throughout the far-flung fronts of the amphibious war, and from cruisers and carrier decks as well. Their ability to "take it" became legendary.

Now Columbia workers are putting the finishing touches on a new and larger amphibion, with greatly increased load and range. More impressive in size, streamlined appearance and performance than the "beloved Duck," the new plane has all the ruggedness and reliability of its predecessor. Details of its extraordinary capabilities are available on request. They will have interest for all who trade or transport to out-of-the-way places and seek speed without benefit of airports.

Columbia Aircraft Corporation, Valley Stream, New York.

AVIATION NEWS

THE STAFF

GEORGE W. PFEIL.....Publisher
ROBERT H. WOOD.....Editor
C. SCOTT HERSHEY.....Managing Editor
MERLIN H. MICKEL.....Transport Editor
RAYMOND CROSIER.....Transport
MARY PAULINE PERRY.....Govt. Agencies
WILLIAM KROGER.....Special Assignments
BLAINE STUBBLEFIELD.....Special Assignments
SCHOLER BANGS.....Pacific Coast Editor
ALEX MCSURELY.....Private Flying Editor
J. K. VAN DENBURG, JR.....Copy Editor
DALLAS MALLARD.....Art Director
ROBERT W. MARTIN.....Sales Manager

CONTENTS

	PAGE
Washington Observer	3
Industry Observer	5
Headline News Section	7
Private Flying	13
Financial	18
Production	21
Special Air Services	27
Personnel	30
Transport	31
Editorial	42

THE PHOTOS

Press Association, 7; British Information Services, 10.

Publication and Executive Offices,
330 W. 42nd St., N. Y. 18, N. Y.
Editorial Headquarters
1357-61 National Press Building
Washington 4, D. C.

Pacific Coast Office, 621 So. Hope St., Los Angeles

Published weekly by McGraw-Hill Publishing Co., Inc. Price 40¢ a copy. Allow ten days for change of address. Subscription rates—United States, Mexico and Central and South American countries, \$5 a year, \$8 for two years, \$10 for three years; Canada, \$6 a year, \$10 for two years, \$12 for three years. All other countries \$9 a year, \$14 for two years, \$18 for three years. Entered as second-class matter July 31, 1943, at the Post Office at New York, New York, under the Act of March 3, 1879. Printed in U. S. A. Cable Address "McGrawhill, New York." Please indicate position and company connection on all subscription orders.
JAMES H. MCGRAW, Founder and Honorary Chairman;
JAMES H. MCGRAW, JR., President; CURTIS W. MCGRAW, Senior Vice-President and Treasurer; HOWARD CHURCH, Vice-President (for business operations); WILLARD CHEVALLER, Vice-President (for editorial operations); JOSEPH A. GERARDI, Secretary, and J. E. BLACKBURN, Jr., Director of Circulation, 120 West 42nd Street, New York 18, N. Y. Branch offices: Chicago, 520 North Michigan Ave.; San Francisco, 68 Post Street; Los Angeles, 621 So. Hope Street; Adelaide House, Adelaide, London, W. C. 2; Washington: Philadelphia, Cleveland; Detroit; St. Louis; Boston; Atlanta. Return Postage Guaranteed. Copyright 1946. All rights reserved by McGraw-Hill Publishing Co., Inc.

Volume 5, Number 1

Advertisers Index

Boeing Aircraft Co.....	6
Columbia Aircraft Corp.....	4
Consolidated Vultee Aircraft Corp.....	26
Fawcett Publications, Inc.....	29
Flottorp Manufacturing Co.....	41
Garratt Corporation, The.....	37
Hi-Shear River Tool Co.....	38
Kelite Products, Inc.....	40
Luscombe Airplane Corp.....	19
Martin Co., The Glenn L.....	17
Melfex Products Co.....	40
Mercury Aircraft, Inc.....	41
Minneapolis-Honeywell Regulator Co.....2nd cover	
Northrop Aircraft, Inc.....	32
Robbins & Associates, Hugh C.....	41
Robinson Aviation Corp.....	40
Romec Pump Co.....	39
Sensenich Brothers.....	41
Socony-Vacuum Oil Co., Inc.....4th cover	
Sperry Gyroscope Co., Inc.....3rd cover	
Standard Oil Co. of N. J.....	23

News at Deadline

CAP Status

Postwar status of the Civil Air Patrol as a non-profit civilian corporation, cooperating with the Air Power League, and other aviation organizations, but without official standing as an Army Air Forces auxiliary, was indicated last week on the eve of a meeting of CAP state wing commanders with AAF and Air Power League heads in Washington. Future of the organization appears to rest almost entirely with the states and local squadrons. It seems doubtful that a hoped for tie-up between Air Forces Reserve and CAP can be achieved, at least in the early future. Meanwhile, national offices of CAP are expected to move to Washington soon from their present Ft. Worth, Tex., location.

Resignations

Charles W. Perelle, general manager of the Hughes Aircraft Co., and four other Hughes executives have resigned. Others quitting are Joseph W. Hennen, assistant general manager; Clifford Sharpe, production manager; Clinton Erb, auditor, and Anthony Burke, public relations director. The resignations are laid to "numerous plant policy disagreements." Perelle resigned as vice-president in charge of manufacturing of Consolidated Vultee in August, 1944, to join the Hughes company.

Airport Plan OK'd

Adoption of the revised Los Angeles County master plan of airports has been voted, 4 to 1, by the County Board of Supervisors.

The action showed readiness of the governing political body of the West Coast's most congested metropolitan area to approve the general location of 36 new airport and airpark areas and leave to future hearings approval or disapproval of specific locations.

Protests against the inclusion of airport areas (in the new plan) in high-value residential foothill districts were ignored temporarily to adopt a plan which will stand as an expression of governmental policy in assuring airports for future personal aircraft owners and commercial operations. The supervisors agreed, however, that they will stand ready to hear future protests against specific airport proposals.



The All American Air Maneuvers, Miami, Fla.

► The Maneuvers drew their share of aviation pioneers. Mike Murphy, stunt pilot and one of the main civilian participants, was a starter, as was Wilbur Shaw, now Firestone Aviation Division representative but known to Indianapolis Speedway fans as a three-time winner of the classic.

► S. J. (Steve) Wittman, holder of a world air record and second place Greve and Thompson Trophy winner in 1937, arrived from Oshkosh, Wis. Walter Beech flew in from Wichita with H. C. Rankin, 1940 Macfadden Trophy winner. Mrs. Phoebe Omlie, air circus pioneer and now operator at Memphis, arrived from Washington. Blanche Noyes, Bendix Trophy winner, took time off from her CAA air marking duties.

► Col. Benny Griffin, early trans-Atlantic pilot, and Col. Ed Aldrin were on the scene, as was Capt. Alex Papana, Romanian air ace. Col. Leslie Arnold, one of the original round-the-world pilots, was seen, with his Eastern Air Lines boss, Eddie Rickenbacker.

► Fred Marchev, president of Republic Aviation, led a group from his company, including Ken Ellington and Gordon Sleeper. Mr. and Mrs. William T. Piper drove in because of weather. Charlie Gallo headed the TACA delegation.

► Jeanette Lempke, president of the Ninety-Nines, flew from Saginaw in a *Voyager*. Mrs. Alverna Babb, legless pilot, flew from Cincinnati. She has piled up 250 flying hours in two-control planes since she soloed in October, 1944.

► Others seen by the three AVIATION NEWS representatives included Beckwith Havens, member of the Curtis team in 1910; Col. Earl Johnson, on leave as CAP commander and not expected to return to that post; Harry Playford of U. S. Airlines and Alaska Airlines; Clarence Hammerstein, veteran pilot from Hollywood, Fla.; Bill Anderson, head of Pennsylvania Aeronautics Commission; Asa Rountree, Alabama state aviation director; C. G. Taylor, pioneer lightplane designer; Roger Wolfe Kahn of Grumman; Robert Reining of Lockheed; Robert Kinkead of Boeing; Zack Moseley, creator of "Similin' Jack"; Sydney Nesbitt, now president of Atlantic Aviation Corp., New York, and Ben T. Smith of Southeastern Air Service.

► Participating organizations, most of which had meetings, were Quiet Birdmen, Civil Air Patrol, Women Flyers of America, Ninety Nines, Early Birds, Sportsman Pilots Association and Aviation Writers Association, whose president, Maurice Roddy, was present.

► Aircraft Industries Association's export committee met in the only available room in the Miramar Hotel one forenoon—the cocktail lounge—with the chairman presiding from behind the bar. . . . Air show pioneer Steadham Acker headed the list of judges, assisted by Grover Loening, Don Ryan Mockler, and Max Karant.

► Aviation's best known friend in the House of Representatives, Jennings Randolph, was lined up for a talk before a Miami group as soon as he arrived. Canada's air attache, Group Capt. Homer Smith, and Australia's Air Marshal Richard Williams were present with air attaches from nine Latin American countries.

► Delta (C. E. Woolman and Laigh Parker as hosts), Eastern, TACA (Charles Gallo, host) and Pan American entertained visitors on successive evenings, as did John Paul Riddle, Piper Aircraft, Republic Aviation, and Leopold Hugo Paul Klotz of Luscombe.

► Kenneth J. Boedecker, of Wright Aeronautical, added scores of pictures of aviation personalities to his candid camera collection, now numbering about 6,000 prints. . . . The only North American AT-6 which is equipped with an in-line engine attracted wide attention. Its Ranger V770-9 575-hp. plant raises the ship's ceiling to 32,000 ft.

FOR COMBAT—THE BOEING B-29 SUPERFORTRESS



The Boeing Stratocruiser—incorporating all the aerodynamic advancements proved in the B-29 Superfortress—brings to air travel the same skill and experience in research, design, engineering and manufacture that gave America the B-29, the staunch B-17 Flying Fortress, the ocean-spanning Clippers, the Stratoliners and other great Boeing airplanes.

"Built by Boeing," it's bound to lead.

BOTH BUILT by BOEING



FOR PEACETIME TRAVEL—THE NEW BOEING STRATOCRUISER

VOLUME 5 • NUMBER 1

Aviation News

McGraw-Hill Publishing Co., Inc.

January 14, 1946

Miami Show, Curbed By Weather, Found Lacking on Many Points

Lightplane aerocade from northern states greatly reduced; military pilots and stunt flyers are sensation, but little attempt is made to put personal aviation over with crowd of 40,000 which attended three-day meeting.

By J. K. VAN DENBURG, JR.

America's first big post-war airshow—the 14th annual All-American Air Maneuvers—entertained Miami, Fla., crowds for three days, Jan. 4-6, but whether it was a success or a failure would be hard to say.

Show officials said a total of 40,000 attended the meet at the city's International Airport, far out in the suburban scrublands. Somewhere between 900 and 1,500 private planes, no one knew for sure, brought civilian flyers south for the event. And more than 2,000 flyers and aviation industry figures registered at the Columbus Hotel headquarters.

► **Weather**—Bad weather kept many lightplanes grounded along the airways from the north. More than 2,000 had been expected to join in the aerocade sponsored by lightplane producers and the Gulf Oil Co., and late arrivals told of hundreds of pilots "sitting it out" up the line. About 600 private planes were staked out at International Airport, with several hundred others at other fields in the area.

The meeting had moderately good weather. Throughout the three days there was a ceiling of 3,500 ft. or better with scattered clouds, but a fresh southeast wind blew steadily and somewhat hampered lightplane flying. It gave pilots a difficult

headwind on the way down, but boosted along those who started home Monday.

► **Spectacle**—The show was a crowd-pleaser, with racing accidents, aerobatics and high-speed demonstrations.

But it is doubtful whether it did much to boost personal aviation with the non-flying public.

► **Debts**—There was the weather hurdle which kept many lightplanes away although airlines were operating on schedule—providing a poor comparison.

► The wind and/or good sense kept racing entries down and consequently gave spectators little chance to see lightplanes in action.

► The show was so arranged that the public entered the field at the furthest possible point—from the lightplane parking area and few walked the three-quarters of a mile from the grandstands to that section of the field.

► A mid-air collision during the Ercoupe race plunged one plane to the ground and seriously injured its pilot.

► Registration badges, worn by all participating in the show, did not indicate those who flew down in their own planes—and a good chance to demonstrate to Floridians and winter visitors the utility of



Battered Trophy: Jack Snodgrass, who was winning the Firestone Trophy race at the Miami Air Maneuvers at the same time a run-away plane smashed into the trophy stand, receives his mangled award from Harvey Firestone, Jr.

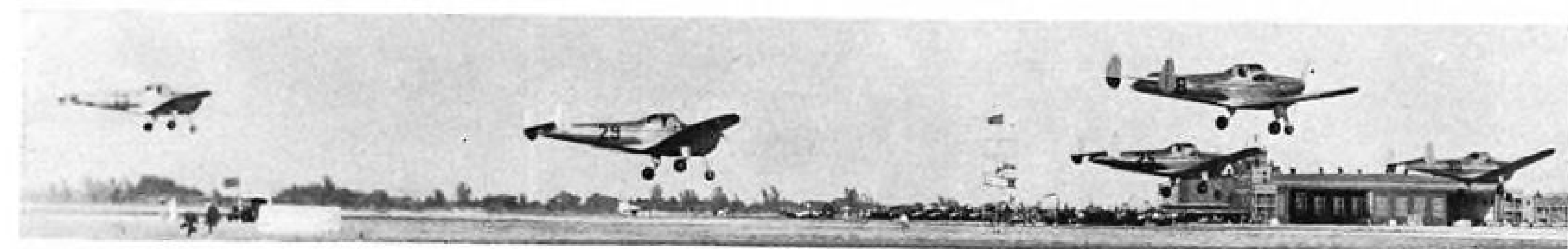
the lightplane was lost.

► **Credits**—On the favorable side of the balance sheet were demonstrations of aviation's advances and potentialities.

► The Navy and Marine Corps put late model fighters, dive bombers and torpedo planes through their paces in both formation and low-level flying.

► The Army had a P-80 on hand to leave the crowds breathless with its speed, a Sikorsky R-5 helicopter to show its unusual flight characteristics, and a line-up of bombers and fighters, from the Mustang to the Superfortress, near the entrance.

► Precision aerobatics by Col. Mike Murphy, Beverley (Bevo) Howard, who won the Carstairs Trophy, Woody Edmondson (second), and Sammy Mason (third) showed what small planes could do if the pilot's



Racing Start at Miami: Five Ercoupes get off in a second-day event at the Miami All-American Air Maneuvers. It was in this race that two planes col-

lided while rounding a turn. In the background is the main hangar at Miami's International Airport, now under Navy operation, where the show was held.

stunting of Laister-Kauffmann glider by Kemball Scribner.

► **Sidelight**—Also on the credit side was an exhibition in a downtown municipal auditorium where approximately 60 displays had been placed by the Army, Navy, Coast Guard and manufacturers. Despite constant "plugs" by the announcers at the airport it drew comparatively small crowds, however. It was to remain open through Jan. 12.

Edmondson Wins Feature at Miami

Feature race at the Miami All-American Air Maneuvers was won by Woody Edmondson, flying a Monocoupe. His time in the 50-mile free-for-all whirl for the Glenn H. Curtiss Trophy and \$1,250 first-prize money was 24 mins. 41 secs., or an average speed of 126.4 mph.

Second place went to Matt Brown, Lynchburg, Va., and third place to Jack Jacks, Miami. Both of them also flew Monocoupes.

► **Other Races**—Results in the other races were:

► **Luscombes**—12½ mi.; Randolph Mai, Jacksonville, Fla., 10 mins. 46 sec.; Joe Marrs, Miami, second;

Old-Time 'Blood Bath' Missing

The "blood bath" which used to characterize air shows was noticeable by its absence at the Miami All-American Air Maneuvers although several mishaps did mar the meet.

In the *Ercoupe* race on the second day the first-place ship, piloted by M. J. Miller, Hartsville, S. C., fell and was demolished after the second-place plane chewed into its tail as they came out of a turn and headed up the line in front of the grandstand. Miller suffered serious injuries when the plane crashed into the lightplane parking area about a half-mile from the stands, wrecking a parked plane. The *Ercoupe* which hit him had its propeller damaged and was taken in for a dead-stick landing in front of the crowd by its pilot, Truman Miller, Raleigh, N. C.

► **Close Escape**—Last day of the meet a bystander climbed into a war-surplus Stinson liaison plane just awarded as a "door prize," and taxied it about 25 ft. into the bandstand. As spectators dived to safety the plane's prop chewed up

several trophies still remaining to be awarded.

Soon after, a Luscombe, piloted by Herbert Myers, Oklahoma City, crashed on takeoff on the opposite side of the huge field. Myers' ankles were fractured but an unidentified passenger was unhurt.

A Marine *Corsair* groundlooped on landing, due to landing gear failure, and several private planes nosed over at various times during the meet when they became bogged down in the soft sand beside the runways.

► **Close Shave**—In addition, Capt. Juan Da Costa, Honduran military attache in Washington, and Capt. Jorge Marcato, Venezuelan air attache in Washington narrowly escaped serious injuries when a railroad train demolished their auto. Police had halted the lead auto of the military convoy carrying a party of Latin American officers to the show and the action left the one auto sitting squarely on the track. The two men jumped to safety but their driver was badly injured.

Moody Larson, Lansing, Mich., third.

► **Pipers**—12½ miles; Tom Davis,

Winston-Salem, N. C. (flying the 1,000th *Cub* built since V-J Day) 11 mins. 50 secs.; John Theis, New Brunswick, N. J., second; C. H. McClendon, Miami, third.

► **Ercoupes**—12½ miles; R. A. Urian, Jr., New York City, 8 mins. 36 secs.; Dave Daball, Miami, second; R. A. Powell, Miami, third.

► **Aeroncas**—12½ miles; Earl Toliver, 12 mins. 36 secs.; Woody Edmondson, Lynchburg, Va., second; William J. Stanwyck, third.

► **Firestone Trophy** (lightplane handicap)—15 miles; Jack Snodgrass, Waterloo, Iowa, 9 mins. 52 secs., (Taylorcraft); R. A. Urian, Jr., New York City (*Ercoupe*) second; Earl Toliver (*Aeronca*) third.

► **Women's Race**—12½ miles; Verna Burke, Miami, 14 mins. 29 secs., (*Cub*); Dot Lemon, Miami Beach, second; Helen McBride, Apopka, Fla., third.

► **Program Cut**—Fourteen events had been scheduled originally, but wind and lack of entries cut the program.

Jack Reno Dies

Jack Reno, 58, Pittsburgh, veteran balloonist died last week. He made more than 3,000 ascensions. He was a member of the Balloonists of America, the Aeronautic Club of Maryland, and the Aero Club of Pittsburgh.

Joint Overseas Service Set-Up Will Be Proposed By Industry

AIA Export Committee will present plan for government approval as method of handling problem of maintaining war-surplus U. S. aircraft sold to foreign customers.

By WILLIAM KROGER

Proposals for a jointly-owned overseas service corporation to maintain U. S.-made aircraft sold to foreign customers by the Foreign Liquidation Commission will be presented to Government officials soon by the aircraft industry.

This was the most tangible suggestion of how to meet an increasingly vexatious problem, with world-wide implications in export trade, that was discussed last week in a meeting at Miami of the Export Committee of the Aircraft Industries Association. Pressing for a solution is the industry itself, the AAF and the FLC.

► **Sales Heavy**—FLC to date has sold some \$6,000,000 worth of aircraft and parts to foreign purchasers. Although the buyers, chiefly airlines, are able to acquire spare parts with the aircraft, no arrangements can be made for servicing and maintaining the aircraft. That is a matter beyond the province of FLC. U. S. manufacturers of the equipment could do it only on service contracts which would be practically prohibitive on a service and maintenance basis alone.

If a servicing arrangement could be worked out FLC would find it easier to sell the surplus material. AAF, which has the job of scrap-salvaging items FLC cannot sell, is also eager to boost sales. The industry wants to avoid any possible reflection on U. S. products that might arise from accidents due to faulty servicing and maintenance. This becomes of prime importance in view of the coming battle with Britain for aeronautical export trade.

► **Plan**—That is the essence of the dilemma posed to AIA's Export Committee by AAF and FLC officials. The outcome of the Miami meeting was that the committee agreed to draw up the industry's outline of how best to meet the problem. As presently considered, it would entail "agency agreements"—such as used by the Reconstruction Finance Corp. in its disposal of surplus engines and parts—between FLC and individual companies

whereby the manufacturers would obtain exclusive sales rights for surplus parts they originally produced. They would then sell these under contract to foreign aircraft purchasers, and the contracts would provide for service.

However, as the dollar volume involved would be relatively small, not all the manufacturers might be able to afford to undertake the extensive service and maintenance arrangements necessary. Therefore, it is contemplated that a joint overseas service corporation would be formed by those manufacturers entering into the agency agreements.

► **Speed Is Key**—While the proposal is too recent for a reaction yet to be obtained among the Government departments concerned, the AAF and FLC representatives sitting in on the Miami meeting looked with favor upon it. In Washington, however, it is pointed out by FLC officials that if the industry actually wants such a system inaugurated, speed is paramount.

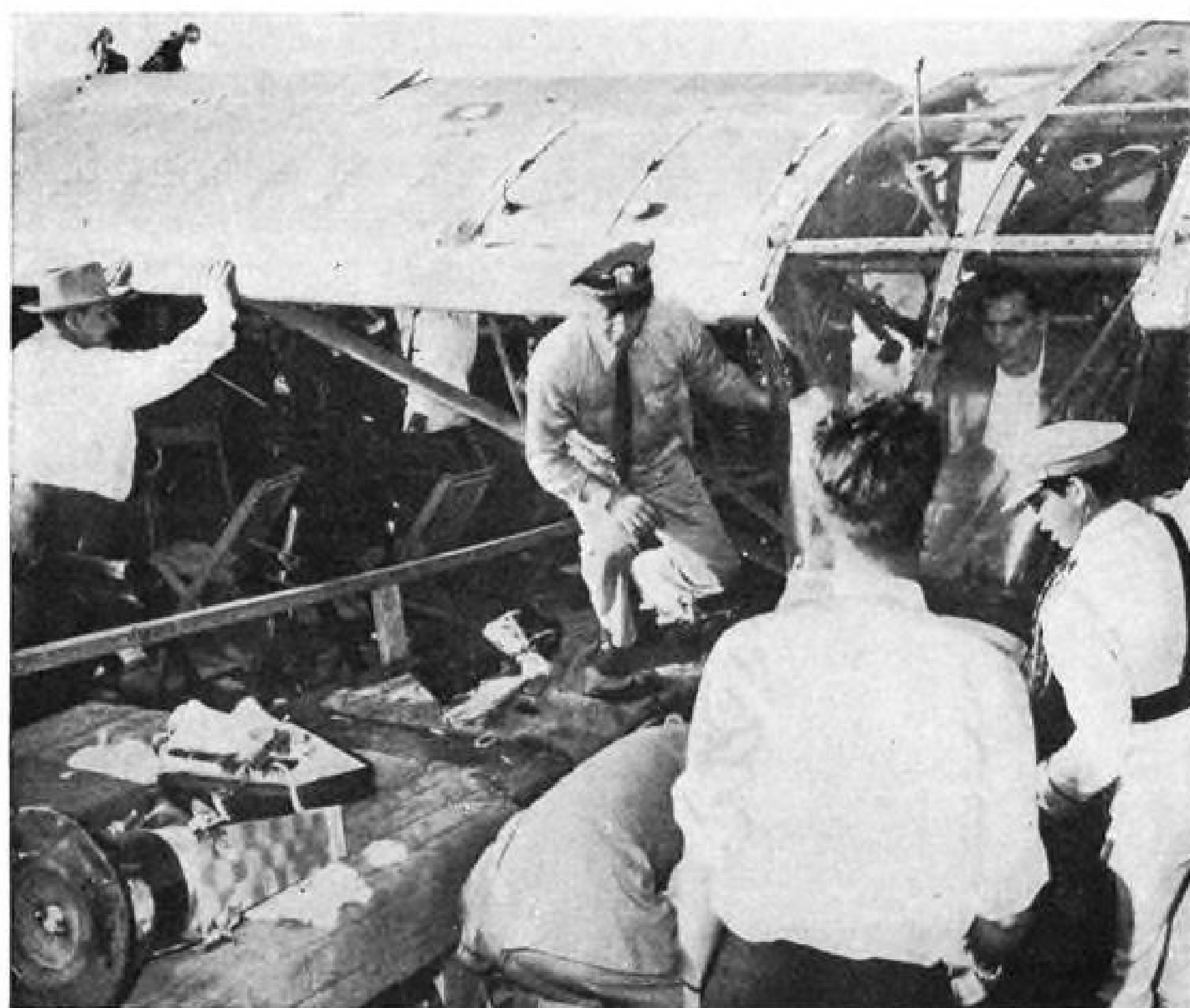
FLC last week completed a deal with Great Britain whereby the entire stock of surplus aeronautical equipment in England will be sold

to the British government, with payment included in the \$4,000,000,000 loan to Great Britain. A bulk sale of surpluses in India is in the works, and FLC expects to open similar negotiations soon with New Zealand and Australia.

► **Miami Sales Center**—Indicative of the fast-moving, modern sales methods FLC has installed to dispose of its surpluses is the export sales center soon to be opened in Miami, and shown to the industry representatives in a preview. Occupying a former Air Technical Service Command building containing 250,000 sq. ft of floor space, the sales center is complete with charts, graphs and other up-to-the-minute merchandising paraphernalia. Sales catalogs, to be ready about March 1, will be printed in English, Spanish and Portuguese.

While impressed with this eye-catching display of FLC's sales technique, and aware that it was aimed at luring the South American business king sought by Britain, the industry representatives were at the same time slightly disconcerted to see such effort lavished on the sale of used aircraft, when one of the industry's major problems is to get back into the export market with new aircraft.

► **Pointed up**—This FLC display, whether calculated or not, pointed up the Government's contention that it would be to the industry's advantage to see that the planes used aboard and bearing the labels of U. S. manufacturers be maintained in such condition as to be a credit to U. S. productive skill.



Air Show Climax: Last day of the Miami All-American Air Maneuvers a bystander climbed into this war-surplus Stinson liaison plane which had just been awarded as a "door prize" and taxied it into the bandstand. High school musicians scattered to safety as the plane's propeller chewed into the trophy table and smashed several of the awards.



Aerobatic Winners: Miss Betty Carstairs, noted speedboat racer and flyer, hands Beverly Howard the Carstairs Trophy for winning first place in the aerobatic competition at the Miami Air Maneuvers as Woody Edmondson (center) second-place winner and Sammy Mason, third, look on. (For other news of Miss Carstairs' activities, see Private Flying).

New Congress Session Convenes With Ambitious Aviation Plans

Thorough investigations of national and international transportation policies loom as most significant, with comprehensive legislation likely as outcome.

The new session of Congress convenes this week with plans for ambitious undertakings in the aviation field.

Through investigations of national and international transportation policies, contemplated by both House and Senate committees, figure as probably the most significant aviation subjects on the Congressional agenda. The investigations are preparatory for comprehensive legislation.

► **Integration**—The House Interstate and Foreign Commerce Committee already has laid the groundwork for its investigation, expected to highlight the need for integration among the various modes of transport—air, waterway, highway, and rail—in the domestic field. The committee's files are replete with documents from private transport interests making recommendations for changes in transport policies. The Lea resolution authorizing the committee to make the survey, however, still is subject to approval by the Rules Committee and the House.

Chairman Clarence Lea (D., Calif.) of House Interstate anticipates that the committee will have cleared private study of submitted reports and be prepared to launch public hearings soon.

► **Senate**—On the Senate side, Interstate Commerce Committee plans to investigate international and domestic transport policies await Senate approval of the McFarland

resolution authorizing the review. The resolution has already cleared Interstate Commerce and the Committee on Expenses.

The investigation, giving the committee a wedge to capture jurisdiction over aviation, can be expected to meet with opposition from members of Senate Commerce Committee. The jurisdiction dispute over aviation between the two committees is still hanging fire.

While Interstate committeemen anticipate framing post-war air transport legislation by tying it up with over-all transport legislation, the Commerce Committee plans to open consideration of the omnibus domestic aviation bill introduced by Sen. Pat McCarran (D., Nev.) early last year. Chairman Josiah Bailey (D., N. C.) of Senate Commerce already has invited McCarran to set dates for hearings on the measure, which, among other things, re-establishes an independent Civil Aeronautics Authority.

► **Doubt**—The decision of House Interstate to lump aviation legislation in with over-all transport legislation and the program of Senate Commerce to take up the omnibus McCarran bill leave slight hope that Congress will take decisive action during the coming year on air transport problems. House Interstate has abandoned its previous plan to act separately on domestic aviation issues, such as state jurisdiction over interstate carriers,

multiple taxation, a separate CAA.

The time-consuming difficulties and wrangling involved in shoving omnibus aviation legislation, let alone omnibus transportation legislation, through Congress were clearly demonstrated in the case of the omnibus Lea bill of the 1943-44 season. Realists see little chance of anything more than a beginning on over-all legislation.

► **International**—In the international field, the "community company" proposition will continue to figure in the Congressional picture. McCarran plans to call for a Senate Commerce Committee vote on his revised "All American Flag Line" bill early in the session. Committee approval of the measure is a possibility, Senate approval improbable, and favorable House action even less likely.

Most of the aviation policy decisions during the coming months may well be made by the House and Senate Appropriations Committee, via the granting and withholding of project funds.

Stunned into a pinch-penny attitude by the lavish spending demanded during wartime, Congress is expected to skeletonize requests for military aviation appropriations, and trim requests for civilian aviation. Large outlays for new airport construction are improbable, and any outlays that are made will have to be battled for.

► **Record**—The 1945 Congress set a zero record on aviation legislation. Its two main aviation undertakings await completion during the next few weeks:

► **Airport construction**: A conference committee has yet to work out compromise legislation from the House-passed Lea bill and the Senate-passed McCarran bill. Conferees are expected to write out a five-year program of \$100,000,000 annually, smaller than that contemplated in the Lea bill, but greater than the program approved by the Senate.

► **Military rescission**: A Presidential veto to the rescission measure, because of an extraneous employment service rider, necessitates the re-passage of the bill.

Doolittle Will be Speaker At Annual IAS Banquet

The Institute of Aeronautical Sciences has announced that Lt. Gen. James H. Doolittle, past president and fellow of the Institute, will be the principal speaker and guest of honor at its Annual Honors Night dinner to be held at the Waldorf-Astoria in New York Jan. 28.

First All-Jet Fighter Announced By Navy

A significant development in the history of naval aviation is the announcement of the FD-1 *Phantom*, designed and built by the McDonnell Aircraft Corp.—the first Navy fighter plane powered exclusively by jet engines and intended for carrier operation.

This craft, already extensively flight-tested, opens the field of carrier operation to the all-jet interceptor. The FD-1 has a service ceiling of well over seven miles and is the first Navy fighter to attain speeds in excess of 500 mph. The Navy reports that the plane, primarily designed as an interceptor, has an extremely high rate of climb and a range of approximately 1,000 miles.

► **Powerplant** — The *Phantom* is powered by twin axial-flow Westinghouse turbo-jet engines built into the wing roots. Of exclusive American design, the engines contain no long scoops or ducts. JATO units may be used for conditions where take-off assistance is needed.

The plane is a single-seat, low-

First Jet Landing

The Navy has just disclosed that Ensign Jack C. West, a Ryan FR-1 *Fireball* fighter pilot, made the first jet-propelled landing on an aircraft carrier during qualification tests aboard the USS Wake Island last November.

The *Fireball*, powered by both a turbo-jet and a conventional reciprocating engine, normally uses its reciprocating powerplant for take-off and landing, switching over to the jet as either an exclusive or supplementary propulsive force once it is in the air.

► **Accidental**—Ensign West made his pioneer jet landing when his plane experienced an almost complete power failure in the reciprocating engine as he was making his landing approach. Quickly starting his jet engine he continued his approach and landed on the Wake Island's flight deck. The Navy reports that according to all available records this marked the first time that an airplane using a jet engine as its major source of power had landed on an aircraft carrier, thus confirming its long-held belief that such a feat could be accomplished successfully.



Navy Jet Fighter: Twin Westinghouse turbo-jets power this FD-1 Phantom, built for the Navy by McDonnell Aircraft Corp. Constructed of aluminum alloy, it weighs less than 10,000 lbs. with full combat load.

wing monoplane of conventional monocoque design. It has a wing span of approximately 40 ft. The wings fold electrically and when rigged for stowage the plane is 16 ft. wide. Rocket devices and auxiliary belly fuel tanks may be dropped in flight.

► **Construction**—The FD-1 has a minimum of air resistance. It is built of light aluminum alloy, polished to glass-like finish. The plexiglass cockpit canopy, set ahead of the engines, resembles an elongated bubble.

All rivet heads are set flush and the tricycle landing gear is completely enclosed when retracted. Total weight with full combat load is less than 10,000 lbs.

The Navy reports that despite its high top speed, the new plane has a landing speed comparable to that of conventional carrier-based fighters, and can take a flight-deck wave-off.

► **Additional planes** for further experimentation and service testing will be delivered soon.

L. Ray Buckendale Elected SAE Head

L. Ray Buckendale, engineering vice-president of Timken-Detroit Axle Co., has been elected president of the Society of Automotive Engineers, it was announced last week at the SAE annual meeting in Detroit. (See *Transport*)

Among 11 new vice-presidents, three were from the aircraft industry: George A. Page, Jr., director of engineering, Curtiss-Wright Corp., as aircraft engineering vice-president; Earle A. Ryder, consulting engineer, Pratt & Whitney, as aircraft powerplant engineering vice-president; and Charles Froesch, chief engineer, Eastern Air Lines, as air transport engineering vice-president.

C-W Says New Motor Sets Hp.-Weight Mark

The world's lightest air-cooled engine per horsepower is claimed by Curtiss-Wright for its new powerplant which develops 1,425 hp., 75 more than its immediate predecessor in the *Cyclone 9* series. The new engine weighs only 1,352 lbs. and delivers 1 hp. for each .85 lbs. of dry weight.

G. W. Vaughan, president of Curtiss-Wright and of its engine-building division, Wright Aeronautical, explained that basically the new engine is built on the same lines as earlier models of the *Cyclone 9* type, but advancements in cooling, supercharger efficiency, and structure have enabled their engineers to take increased output from the 1,823 cu. in. which have been standard displacement of the series for several years.

► **Export Orders**—The new engine is installed in the Curtiss SC-2 *Seahawk* and in other experimental military aircraft. Vaughan said that certain domestic and foreign airlines have ordered the engines. Definite announcement of the sales will be made later.

Cooling has been improved by use of a new-type forged aluminum cylinder head with differential finning. Among structural features are added strength gained through use of the forged head, stronger power transmission parts, oil jets for increased cylinder and piston ring lubrication, high durability valves and increased cam overlap for improved detonation.

► **Supercharger**—An "impeller inducer" which adds to both pressure and efficiency of the supercharger is used in the engine to permit it to maintain power at higher altitudes than were attainable with former engines of the series.



THE BRISTOL 170:

Britain's first post-war aircraft built to civil design, is a prototype of two structurally similar models, the passenger-carrying Wayfarer and the goods-carrying Freighter. The plane was given its initial test flight recently at the Bristol plant. It is powered by two Bristol Hercules engines of 1,675 brake hp. It has a cruising speed of 150 to 180 mph. and will carry a 5½-ton payload as a cargo carrier.

Noorduyn Splits Up

R. B. C. Noorduyn has parted company with W. R. G. Holt, his war-time and pre-war backer, and Noorduyn Aviation, Ltd., has been broken up into two companies.

Noorduyn has paid \$103,800 for all rights and equipment, and will continue to build the Noorduyn Norseman transport, used extensively by the United States AAF as the UC-64, for the Canadian and export market with new financial associates.

► **New Firm**—Other stockholders have formed Nuclear Enterprises Ltd., to make articles other than aircraft or aircraft accessories. No decision has been reached as to who will occupy the government-built factory of Noorduyn Aviation at Cartierville Airport, Montreal.

Aeronautical Board Ready To Proceed

Reorganization of the Aeronautical Board, established in 1916 for joint Army-Navy planning, procurement and coordination of air power (AVIATION NEWS, Aug. 27, '45) has been completed. The Board will resume functions which during the last five years had in part been delegated to various war agencies, including the War Production Board and The Joint Aircraft Committee.

The new board includes the following membership: Army—Deputy Commanding General, Army Air Forces; Assistant Chief of Air Staff, Material and Services, Operations Division; War Department General Staff Member. Navy—Deputy Chief of Naval Operations (Air); Assistant Chief Bureau of Aeronautics; Director, Aviation Logistics Plans.

► **Committees**—The following committees have been established: Plans and Policies; Research and Development; Production Program; Supply and Maintenance Requirements; Aircraft Radio and Electronics; Aircraft Ordnance and Armament; Army-Navy-Civil Committee on Aircraft Design Criteria; and the Working Committee.

The latter is charged with the preparation of joint Army-Navy aeronautical standards, the coordination of release for domestic and foreign sale and manufacture of equipment and the release of technical information, coordination between committees of the Aero-

nautical Board and the duties of Secretariat. Membership of this committee consists of a senior Army and Navy aviator appointed respectively by the Commanding General, AAF, and the Deputy Chief of Naval Operations (Air).

Airlines Announce Major Appointments

Gallo becomes TACA traffic vice-president; McErlean named legal director for United; Fullerton appointed TWA general traffic manager.

Latest important appointments among airline and aircraft officials include those of two vice-presidents, a legal chief, a general traffic manager, and a Washington representative.

Charles L. Gallo has been named vice-president—traffic for TACA Airways System. Before joining TACA Gallo was with Transcontinental & Western Air, Inc., for 10 years working in the field of route development. He later became assistant to the vice-president of traffic of TWA.

Clyde S. Fullerton, after 15 years with Transcontinental & Western Air, Inc., has been made the airline's general traffic manager. His service record dates back to the operations of TAT-Maddux, TWA's predecessor. TWA's director of passenger sales since 1924, he will be succeeded by **James E. Hawthorne**, who has been assistant director of passenger sales.

Comdr. Lawrence E. Williams has been appointed Washington representative of McDonnell Aircraft Corp. Comdr. Williams has been head of airplane production in the Navy's Bureau of Aeronautics.

Gordon D. Brown has been elected a vice-president of Bankers Trust Co. Brown, who has been actively associated with the aviation industry for over 20 years, will head up the bank's service to that industry in line with a policy to fit requirements of the individual industry.

With Douglas Aircraft for 20 years,

Brown served as assistant to Donald Douglas, as director of market research and economic planning in production, engineering and sales.

C. F. McErlean has been appointed director of law for United Air Lines in charge of a newly created Legal Department. He has been assistant to the president since 1945. Prior to that he was with the National Labor Relations Board practicing law in Chicago for some years. Recently he has been devoting his time to United management-employee relations.

years. Recently he has been devoting his time to United management-employee relations.

Lawrence W. Brown Dies; Pioneer Flyer and Designer

Lawrence W. Brown, pioneer flyer and airplane designer, died after a heart attack at his home in Los Angeles last week.

He was the creator of a series of famous racing planes, the holder of FAI pilot license No. 310, and an Early Bird. He had recently organized Brown Aircraft Co. at Montebello, Calif., for the production of a new lightplane.

Brown received his flight training from Glenn Martin in 1913 at the age of 18, and by 1915 was taking part in a then current Mexican revolution as Chief of Staff of the small Mexican Federal Air Force, under Gen. Calles.

Following World War I he built a series of custom planes around the famous 90-hp. Curtiss OX-5 engine, later turning to the production of racing planes.

AVIATION CALENDAR

Jan. 11-26—Cleveland (Ohio) Aircraft Show.
Jan. 21-22—Northwest Aviation Planning Council, Boise Hotel, Idaho.
Jan. 28—Institute of Aeronautical Sciences Honors Night Dinner, Waldorf-Astoria Hotel, New York.
Jan. 29-31—Institute of Aeronautical Sciences, Annual Meeting, tentatively scheduled for Pupin Laboratory, Columbia University, New York.
Feb. 12—IATA European Rate Conference, Paris.
Feb. 21—IATA Middle East Rate Conference, Cairo.
Feb. 22-23—Joint Air Defense Conference, sponsored by Joint Airport Users' organization of the NAA, Mayflower Hotel, Washington, D.C.
Feb. 26-28—Air Transport Association Engineering and Maintenance Conference. Place not yet set.
March 1-5—Pan American Aircraft Exposition, Dallas, Texas, reviving pre-war annual exhibit.
March 4—PICAO route service conference on North Atlantic air navigation facilities starts at Dublin.
March 8-16—Southwestern Aviation Exposition, Fort Worth, Tex.
March 11-12—Joint Air Transport Conference, Statler Hotel, Washington, D.C.
April 3-5—SAE National Aeronautic Spring Meeting, Hotel New Yorker, New York.
April 8—PICAO route service conference on European air navigation facilities starts at Paris.

PRIVATE FLYING

Price of New Cessna Model 120 Likely To Jolt Other Producers

125-mph. \$2,495 lightplane will sell for well under cost of any other craft in its performance class and within \$300 of lowest price yet quoted for two-place ships.

By ALEXANDER MCSURELY

The \$2,495 price tag on the Cessna Aircraft Co.'s newly-announced Model 120, is quite likely to have a disturbing effect on the prices already announced by other personal plane manufacturers for their two-place models.

The Model 120—a two-place 85-hp. high-wing monoplane, all-metal except wing-covering—has a guaranteed top speed of more than 125 mph. Yet the \$2,495 price is well below any price yet announced for a competitive plane, and is within about \$300 of the lowest prices yet quoted for two-place planes.

► **Schedule**—Cessna expects the Model 120, and its "deluxe" counterpart, the Model 140, which sells for \$2,995, will be rolling off volume production lines in Wichita, Kans., by March, and that two other models, the 170 and 190, will be ready by late summer. While it will be several months before the Cessnas will be in the field in any great quantities, it is apparent that companies making planes in the same class with the Model 120, will have to choose between adjusting prices or losing business to the price-leader.

Most revolutionary feature of the 120 and 140 is the Cessna-patented spring landing gear, made of heat-treated chrome vanadium, which absorbs the shock of landing by

Similarities

Photos of the new two-place Cessna Model 120 or deluxe Model 140 indicate a remarkable resemblance to the Luscombe Silhouette which will give the lightplane spotter some bad moments. Distinguishing characteristics, are the more slender landing gear on the Cessna, its longer fuselage and shorter wingspan, its window behind the door, and of course, the "S" for Silhouette, on the nose of the Luscombe.

flexing of the gear itself, eliminating the moving parts found in conventional gear. It is reported the Cessna gear has taken a 20-foot direct drop of the airplane to the ground, without damage.

► **Gains**—The manufacturer asserts that the spring gear offers improvement in ground handling in high winds and cross winds, and offers resistance to ground looping tendencies. It also virtually eliminates normal landing gear maintenance. A 100-hr. check on the landing gear means only a close visual inspection, since there are no moveable parts to disassemble.

While the spring landing gear has

been the subject of experiment by various military and civilian engineers for a number of years this is one of the first, if not the first, instances of its use in quantity production.

► **Specifications**—The basic Model 120 has a 31-ft. 8-in. wingspan, and an overall length of 26 ft. It is powered with an 85-hp. Continental engine, and carries 25 gallons of fuel in two wing tanks, with a natural, gravity flow of fuel to the engine, eliminating a fuel pump. The plane has a range of four hours which, with a cruising speed "well over" 100 mph., would make its range somewhere over 400 miles.

For his extra \$500, the buyer of the Model 140 gets a more luxuriously upholstered cabin with adjustable seats and sound insulation; indirectly lighted and shock mounted instrument panel; manually controlled flaps giving any degree of flap setting desired; starter and generator; provision for two-way radio; provision for landing lights; steerable tailwheel. Both planes are equipped with hydraulic brakes, and fixed-pitch wood propellers. The Model 120 has full-swivelling but non-steerable tailwheel, and has no flaps, or starter.

► **Trainer**—From the tone of the first announcement, Cessna is slanting



New Cessna: First photos of the new Cessna Model 120 show the new spring-steel landing gear. Despite its fragile appearance, the company reports it has withstood 20-ft. drop tests.



the Model 120 toward the operator market as a trainer and practical cross-country rental plane, while the Model 140 is aimed more at the individual private flyer.

Both the 120 and the 140 have received approved type certificates from CAA. Dealers are expected to get their first models in March.

Cessna points to its previous record in plane production in announcing its new models. The company won the pre-war trophy awarded for "The World's Most Efficient Airplane" three times. During the war it manufactured military trainers and utility planes in its company-owned plants on a contract basis instead of the usual cost-plus arrangement. As a result of its production volume and efficiency it was one of the few manufacturers to receive the Army-Navy "E" award five times.

Fast Rocket Flight

Ground speed of 226.2 mph. for the 800 miles from Savannah, Ga. to Roosevelt Field, N. Y. was reported for a flight made last week by the Johnson Rocket 185. The Ft. Worth-built plastic plywood plane, powered with a 185-hp. engine and still wearing its NX number, made the trip in 3 hrs. 32 mins., Johnson officials reported. The speed was approximately 40 mph. faster than the advertised cruising speed of the Rocket 185, indicating the assistance of a strong tailwind.



ADMA OFFICERS:

New president of the Aviation Distributors' and Manufacturers Association, W. F. Scott, Jr., of Supply Division, Inc., Robertson, Mo. (left), receives gavel from the retiring president, Tom O. Duggan, of Thompson Products, Inc., Cleveland. Duggan becomes chairman of the advisory board.

Briefing For Private Flying

A new hydraulic controllable-pitch propeller for lightplanes is expected to go into production soon as Continental Motors Corp., Muskegon, Mich. The new prop, described by Continental President C. J. Reese as "particularly easy and efficient in operation and with many advantages over competitive propellers," will mark the company's entrance into this new field and undoubtedly will provide serious competition for other propeller manufacturers. Continental now has a dominant place as manufacturer of most of the engines in the first post-war lightplanes, and is likely to make a serious try for a like position in the lightplane propeller field.

AERONCA EXPANSION—The Aeronca Aircraft Corp. board of directors has authorized an expansion program to increase production at the Middletown, Ohio, plant from 20 to 35 planes a day. Besides additional facilities for painting, welding, jig and tool making, material handling, experiment and lofting, and additional mechanized conveyors, the new program calls for addition of a large personnel office and cafeteria for the employees.

THE BEST LAID PLANS—West Coast aviation folk are chuckling about a story told on Lockheed, noted for its preparations to achieve supersecrecy on any new airplane which it is not yet ready to unveil. The yarn concerns the first test flight of the sensational *Little Dipper*, one-place plane, many months ago. The flight was scheduled at Newhall Airport, in a farming area. Lockheed officials were confident that the local inhabitants, who eyed the *Dipper* with only casual interest, had little appreciation for what they were seeing. But then somebody noticed two of the "farmers" wearing overalls which were obviously new. They strolled casually away, after a thorough inspection, and left the airport in an auto, so the story goes, which bore the markings of the Douglas Airplane Co., a principal Lockheed competitor.

CAP TRANSCONTINENTAL ROUTES—Colorado CAP flyers are preparing to map all known "bad wind" areas over the Rocky Mountains where updrafts and downdrafts make flying hazardous for any lightplane. National CAP headquarters, noting the Colorado plan, is suggesting to other CAP wings that such mapping is a service which can be extended by other states. Maps of all states, showing areas of forest, swamps, or badlands where there are no natural landing fields, would make it possible for private flyers to lay out safer transcontinental routes. Airmarkers and emergency landing fields could be concentrated along these routes.

TAYLORCRAFTS TO FRANCE?—Two Taylorcraft *Twosomes* may be the first post-war American lightplanes to be exported to France, if a would-be purchaser's plans are carried out. A French woman pilot, the manufacturer reports, impressed by the plane's performance, has asked government permission to ship two of them to France for use in air shows there.

GILDER PARK PLANNED—Purchase of 2-sq. mi. Table Mountain, mesa near Golden, ten miles from Denver, is being urged on city officials with the proposal that the area be used as a municipal glider center. Denver gliding enthusiasts are quoting Lt. J. J. Mason, Army gliding specialist, as saying that Table Mountain offers natural advantages for gliding found in few other locations in this country.

GLOBE SUB-CONTRACTS—Globe Aircraft Corp., Ft. Worth, has announced a contract for supplemental production of more than \$6,000,000 worth of two-place all-metal low-wing *Swifts*, to Texas Engineering & Manufacturing Co., Ltd., Dallas. The Dallas concern already has a contract to build Fairchild F-24s under a similar arrangement with Fairchild Airplane & Engine Corp. John Kennedy, Globe president, said his company already had more than \$16,000,000 worth of orders for *Swifts*, and that the additional production capacity offered by the Dallas organization was needed in order to meet demands of his dealers and distributors.

LUSCOMBE PRODUCTION—Leopold H. P. Klotz, president of the Luscombe Co. and visitor at the Miami All American Air Maneuvers, revealed that production of "Silvaires" at the firm's new plant in Texas was scheduled to reach a rate of four planes a day last week.

—Alexander McSurely

Huge Miami Land-Water Base Under Construction on Island

Betty Carstairs, noted speedboat racer and pilot, heads company developing \$1,118,000 airport which also will provide yachting facilities; hangars for 500 planes planned eventually.

Carstairs Airport, a \$1,118,000 field for private land and seaplanes at Miami, Fla., is now reported under construction. It will be operated by the Four Winds Air Association, Inc., headed by M. B. (Betty) Carstairs, British-American sportswoman speedboat and plane pilot. The association plans to make this the first of a chain of private flyer airports throughout the country.

Located on Lummus Island, south of Miami Beach, the new field is designed to provide facilities for private yachts, as well as for small business and pleasure aircraft.

Features—Features planned include: a 3,500-ft. runway for landplanes; amphibian ramps for seaplanes; boatslips at the south side of the base for 50 to 100 motor boats and yachts; control tower with full radio facilities; a complete restaurant, lunch room and cocktail bar; an aviation school for land and seaplanes; full maintenance and repair service; hangar facilities for 500 planes with additional tie-down facilities; sales rooms for planes, parts and accessories; an aerial photography service which will cover anything within a 1,000 mile range; charter plane service, and offices for the CAA.

Speedboat service between the new airfield and Miami and Miami Beach will be operated at six-minute intervals.

Program—Plans drawn by General Airport Co., New York, call for development of the project in several stages, as private flying needs expand. First stage calls for construction of the 3,500-ft. ESE-WNW runway with turnouts and a paved taxiway; row hangars accommodating 32 small lightplanes, and six medium sized planes; a 100-ft. square shop hangar; administration building; docking facilities for nine seaplanes, with individual hangars for six small seaplanes and two medium sized ones; an amphibian ramp providing access to the seaplane hangars.

A one-way traffic system for taxiing planes to and from hangars permits a closer grouping of the hangars than would be practicable with two-way traffic necessitating planes passing each other in the

lanes. Sixty-ft. lanes are provided between the eight-unit hangars for smaller planes, and 75-ft. lanes between the six-unit hangars for medium-sized planes, while lead-in lanes are 75-ft. wide or wider.

Second Stage—As soon as additional patronage at the airport requires, another shop hangar and additional unit hangars for more planes will be added.

Hangars are designed with special overhead doors which provide unique bracing against high winds with transfer of wind thrust to ground and overhead truss. The door is designed to be opened or closed easily by one person under normal conditions.

Sales—A sales building will be located so that every visitor to the island will have an unobstructed view of the show windows, while the rear of the building has clear approaches to the airport, so that manufacturers can hangar demonstration planes in the rear of their salesroom units.

Fuelling will be done by truck delivery during early stages of the field development.

Officers—Officers of the Four Winds Air Association, besides Miss Carstairs, are Irwin Nathanson, New York, vice-president; Lt. Comdr. F. W. Wiggin, USNR, as-

New Planes at Miami

Private flyers who attended the Miami All American Air Maneuvers saw only a few of the post-war light planes. Bad weather, which also cut down participation in the Gulf aerocade, grounded many "show models" en route.

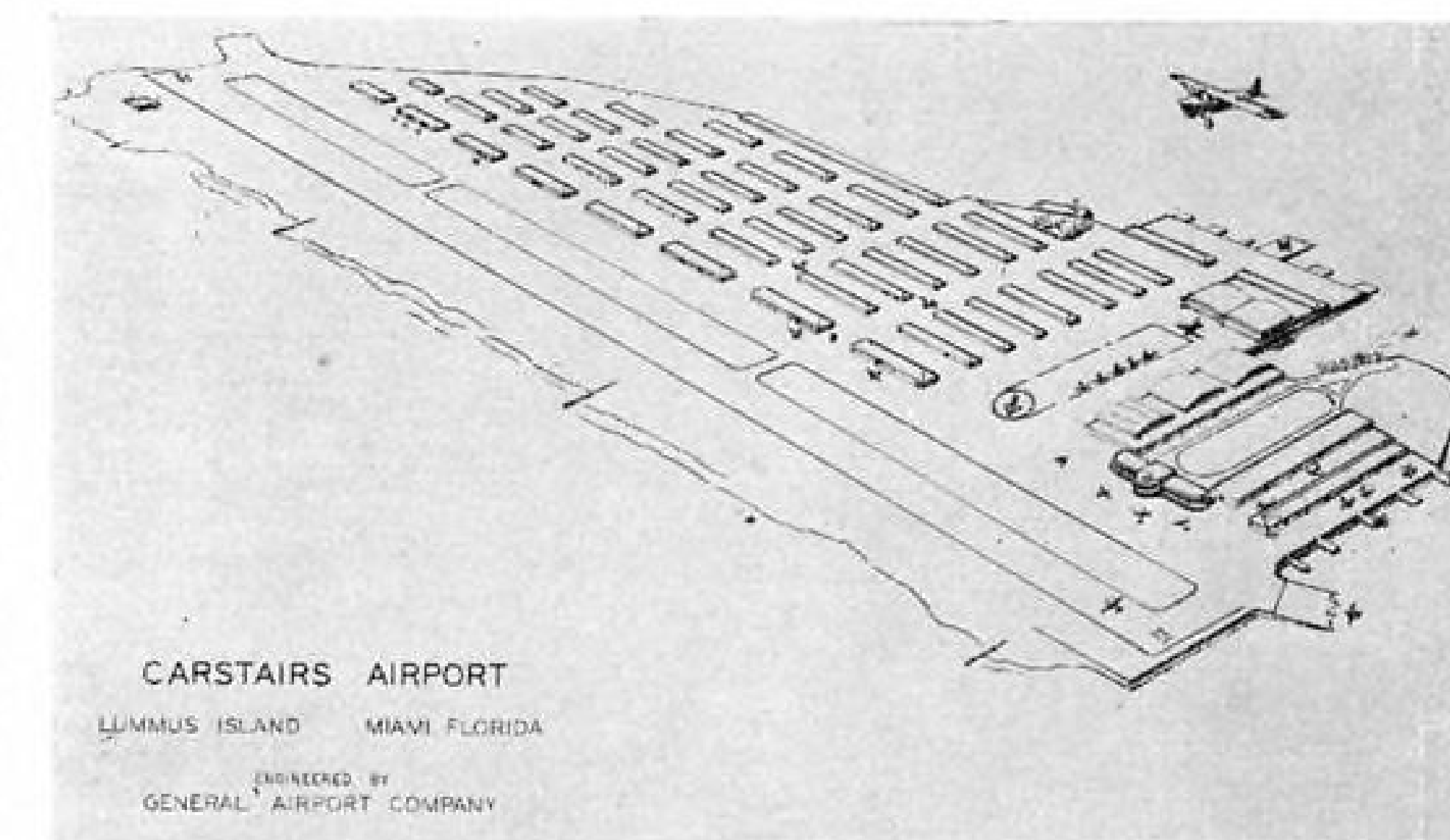
Present were the Piper *Supercruiser*, the latest *Ercoupe*, the *Globe Swift*, the new *Culver* and the Johnson *Rocket*.

Hard to Find—So many planes attended the show that the parking situation got out of hand, however, and a number which merited some display spot were wedged in without special recognition.

Assistant vice-president, and N. J. Durrant, treasurer and secretary, both of Miami.

Miss Carstairs holds a commercial pilot license in addition to her experience in world record speedboat racing, in which she has won 56 cups in competitions in this country and in Europe.

Future—In estimating the growth of business at the new airfield, General Airport Co. predicts that in the first years the tourist is a prospective customer only to the extent that he can be influenced to take flying lessons, buy an airplane or take charter or feederline air trips to nearby points. The tourist who flies his own plane to Miami for a vacation will be one of a small group for at least the next two or three years, it is predicted.



Carstairs Airport: Drawing of the proposed new \$1,118,000 Carstairs Field for private flyers on Lummus Island at the south end of Miami Beach, Fla., shows the 3500-ft. airstrip, row hangars for 500 lightplanes, seaplane ramps, administration building and shop hangars.

Speedway Aerocade Mapped

Plans for a "Fly to the Speedway" air tour for private flyers in conjunction with the annual Memorial Day Indianapolis Speedway 500-mile auto race are being developed at Indianapolis. Possibility of installing an airstrip on the infield of the 2½ mile brick oval track is being studied.

Col. A. W. Herrington, president of Marmon-Herrington Co., Indianapolis, is chairman and Gene Dawson, *Indianapolis News* aviation editor, is secretary of a civic committee in charge of arrangements. Tentative plans call for an airport operators' committee headed by Roscoe Turner and Bob Shank, to make arrangements for handling the incoming private plane traffic. Incoming flyers would

be guests at a dinner on the eve of Memorial Day, at which they would be made members of an "I Flew to the Speedway" club. The club would elect officers and hold annual meetings in Indianapolis at racetime.

► **Similarity**—According to Wilbur Shaw, president and general manager of the speedway, who was starter at the Miami All-American Air Maneuvers, the tour might be planned somewhat along the pattern of the winter lightplane tour to Florida sponsored by the lightplane manufacturers and the Gulf Oil Corp.

He said he and Tony Hulman, Jr., owner of the speedway, were studying possible airport sites near the track.

CAA Drops BT-13's; Will Use SNJ-3's

CAA inspectors will be provided with surplus Navy SNJ-3 planes, instead of the surplus Army BT-13 planes originally scheduled, Administrator T. P. Wright announced last week.

Wright said the change was made after examination of sample BT-13's disclosed that 300 man hours of work would be needed to make these planes airworthy under CAA standards. Because of the cost of this modification the SNJ-3, the Navy version of the North American *Texan* or *Harvard*, also supplied to the Army under the designation AT-6, has been chosen instead.

► **Noise**—The change will provide the inspectors with a much quieter airplane, answering critics who had objected to the high noise level of the BT-13 when its two-position propeller is in flat pitch. The SNJ-3 has a constant speed hydromatic propeller.

Comparison of the two trainers indicates that the CAA has gained in other respects by the substitution. Both planes have approximately the same range, around 730 miles, but the SNJ-3 cruises at 180 mph, as against 170 for the BT-13, and has a 23,000-ft. ceiling as against 21,000 for the BT-13. Both planes have flaps, but the SNJ-3 has hydraulically-retractable landing gear while the basic trainer's undercarriage is fixed.

► **Progressive**—The change in planes is regarded as another progressive step for private flying, indirectly, since the administration could not

have pressed its campaign for quieter private planes with any good grace if its own inspectors were roaring around the country in the noisy BT-13's. And it is generally held that noise levels of all personal planes must be reduced considerably, before property owners will admit airports to residential areas where they must come if the private plane is to have real utility.

Voyager 150 Certified; Welsch Leaves Firm

Resignation of James C. Welsch as sales manager of the Stinson division, Consolidated Vultee Aircraft Corp., Wayne, Mich., and type certification of the Stinson *Voyager 150* four-place personal plane, were announced by the company last week.

Welsch plans a vacation before making any other business connection. His successor has not yet been named. Widely known in the lightplane industry, Welsch has been in aviation sales work for more than 20 years and has been a pilot for 22 years. During World War II he represented Convair in England for 18 months. Previously he had been with Convair's economic research department in New York and Washington, and as Eastern sales manager for Stinson. He was largely responsible for the Stinson division's postwar personal aircraft sales program.

► **Certificate**—The *Voyager 150* has been assigned CAA type certificate No. 767, which the manufacturer says is the first type certificate is-

sued under the new post-war manufacturing standards prescribed in Part 03 of Civil Air Regulations. The plane is licensed both in the normal category for cross-country flight, and in the utility category for flight training.

The *Voyager 150* is a high-wing monoplane of fabric and steel tubing construction cruising at 125 mph., powered with a 150 hp. Continental engine. It is regarded as one of the best examples to date of what can be done to quiet the small personal plane by engine muffling and cabin insulation.

Aviation Insurance 'Scramble' Forecast

A "scramble" on the part of insurance underwriters to get aviation insurance business is likely to force rates down well below what they should be on the basis of present accident rates, Albert J. Smith, vice-president and financial manager of U. S. Aviation Underwriters, Inc., New York, believes.

Writing in a recent issue of *The Eastern Underwriter*, Smith criticizes recent over-buoyant aviation advertising "which would leave an unsuspecting fellow with a feeling that after 10 easy lessons he can fly in safety to his summer cottage or visit the folks in Peoria on weekends."

► **Forecast**—If the buying public takes this type of advertising seriously, Smith predicts, "a lot of folks aren't going to be around very long to continue to purchase and insure private aircraft."

"It seems safe to say competition will force rates down below what they should be for some time to come," Smith concludes.

Salem, Ore., Sky Haven Plans Cabin-Hangar Units

Combination tourist cabin and individual hangar units will be constructed at Sky Haven, a new airport for private flyers seven miles north of Salem, Ore. The 80-acre field already has one turf runway in use and three others are planned. Operators are Richard E. Poet, former Army flyer; Joe Dewitt, Salem; and Miles O. Marion, Portland. Ten of the cabin-hangar units are planned for the first stage of development with others to come later. Plans also call for a two-story wooden structure containing restaurant, offices and clubroom.

Big airline orders for the MARTIN 202!



What's the big news in aviation today? The Martin 202! Right now, large initial orders for the 202, totaling millions of dollars, are on Martin's books. And this is only a beginning! More and more airlines are signing up. Record-smashing domestic and foreign sales are in the making. And in 1947 Martin will be turning out the 202 at a rate of 50 a month! Martin sets the pace for postwar air travel! It's the plane that most nearly meets ATA specifications for a twin-engined, medium-range transport. It obsoletes any plane of its class now flying. And it's backed by Martin's 37 years of advanced aircraft design! No wonder the airlines are piling up orders for the new Martin 202!

Here's Performance Plus!

Years ahead of the field, the Martin 202 flies 100 m.p.h. faster than today's transports . . . offers comfort unsurpassed by even the largest 4-engined craft . . . cuts operating costs to the marrow. This plane is not just designed for the airlines. It's designed by the airlines . . . custom-built by Martin . . . to the most exacting standards of the air traveler.



THE GLENN L. MARTIN COMPANY • BALTIMORE 3, MARYLAND

AVIATION NEWS • January 14, 1946

FINANCIAL

Selective Aircraft Shares Showed Substantial Gains During 1945

Analysis shows number more than doubled in price although pattern was spotty and there were wide variations in gains; United Aircraft Products Corp. lead.

Selective aircraft shares showed substantial gains during 1945. An exclusive AVIATION NEWS analysis discloses that a number more than doubled in price.

As indicated in the accompanying table, the pattern was very selective and there were wide variations in the gains.

Top honors belong to the common stock of United Aircraft Products Corp., traded on the New York Curb Exchange, which appreciated about 130 percent. This accessory company has relatively limited market interest. The gains are tangible, nevertheless, and illustrate the profit possibilities in special situations. This company has demonstrated a strong upward earnings trend. Considerable capital leverage was also present in the form of senior debt and preferred stock. (The preferred stock has since been retired). The small number of common shares (238,000), makes for thin markets thus accelerating upward moves.

► **Builders**—Lockheed and Republic

showed the best gains among the frame builders with a gain of around 110 percent. In both instances, there were no senior securities ahead of the common stock, thus eliminating any leverage possibilities. The shares outstanding were about the same, around 1,000,000. Both companies have been among the favorites for post-war business in the aircraft industry.

Low-priced Piper Aircraft doubled in value, rising from 4 to 8½ during the year. As a rule, during speculative market periods, low-priced securities attract considerable attention. This probably was a factor in this case. Around 600,000 shares of common stock are presently outstanding.

► **Gains**—Bell, Boeing, Convair, Grumman and Martin showed price gains ranging from 61.5 to 83 percent. These companies have been considered by most market analysts to have encouraging prospects to garner a substantial share of the available post-war business. Bell has attracted added attention due

to the interesting possibilities of its helicopter.

Douglas recorded a gain of only 39.5 percent for the year. This may be attributed to the fact that the company's shares were less deflated throughout recent years than most aircraft equities. As a higher price equity there has also been the inclination of market speculators to avoid this issue in preference to others which have higher percentage appreciation possibilities. The table clearly shows that the lower-priced issues, where favorably situated have done far better than the higher priced shares.

► **North American**—Among the major frame companies, North American has fared about the worst. This is probably due to the fact that its post-war outlook is least promising and also to one of the largest share capitalizations in the industry—some 3,435,000 shares.

United Aircraft, while considered about the most conservative of all aircraft companies, showed about the lowest price appreciation of all the major companies. This completely integrated unit was long the favorite of the investment trusts when aircraft shares were popular. It has enjoyed far greater price stability than most aviation companies, fluctuating little from year to year.

Its huge capitalization also mitigates against sharp upward moves. There are about 2,657,000 shares of common stock outstanding, preceded by about 250,000 shares of preferred.

► **Curtiss-Wright**—Despite its top-heavy load of 7,432,000 shares of common and 1,139,000 shares of "A" stock, Curtiss-Wright has done much better than United Aircraft. The common showed an appreciation of 37 percent for the year. Again, this is a reflection of the interest in low-priced securities.

Even such companies as Bellanca and Brewster which have had very difficult times at the height of the aircraft boom, have participated in a small measure through the market rise of 1945.

► **Conservatives**—Such conservative accessory companies as Bendix, Sperry and Thompson Products showed very nominal market appreciation.

► **Prospects**—The complete lack of uniformity in the 1945 price pattern may very well be repeated this year. New price levels have been established for the individual aircraft companies. Their relative positions, gains and losses, will be determined by their ability—or lack of it—to show earning power and hope for the future.

1945 MARKET CHANGES
AIRCRAFT COMMON STOCKS

Company	1945 High	1945 Low	1945 Latest	1944 Close	Net Change	Percent Increase
Beech	17½	9½	15½	14¼	1½	8.0%
Bell	29½	12½	26¾	14½	12½	83.0
Bellanca	8½	3½	7	5¼	1¼	21.5
Bendix	63	47¾	54	47½	6½	12.5
Boeing	34¾	17¼	31½	18	13½	75.0
Brewster	6	3½	5½	4¾	¾	8.0
Cessna	7¼	3¼	6½	4½	2	41.0
Cons. Vultee	35¼	17¼	33¼	19¼	14	73.0
Curtiss-Wright	9	5½	7½	5¼	2½	37.0
Douglas	100½	65	97¾	70	27¾	39.5
Grumman	55½	28½	52¼	31½	20½	64.0
Lockheed	42¼	19½	42¼	20½	22½	110.0
Martin	46¾	21½	40½	24½	15½	61.5
No. American	15½	9½	13½	10	3½	36.0
Piper	8½	3½	8¼	4	4¼	105.0
Republic	18½	7¼	16¼	8	8¼	110.0
Sperry	39	27½	35½	28½	7½	25.0
Thompson Prod.	66½	45	58¼	46¼	12½	27.0
United Aircraft	38½	25	34¾	30¼	4½	15.0
United Air. Prod.	25½	9¾	24½	10½	13¾	130.0
Waco Aircraft	9½	5	7¼	5½	2½	40.0

In a world all its own...

LUSCOMBE'S NEW SILVAIRE



YOU can't beat ALL-METAL construction for top durability... for extra miles per hour... for economy of operation... for sheer beauty.

But Luscombe's SILVAIRE is more than just an all-metal plane—it's *the* all-metal plane with the unmatched experience of the *first all-metal personal plane builder* behind it!

As the new SILVAIRE so effortlessly takes the sky in its stride it really has the "feel" of a heavier plane...

it has the smooth stability—the easy-to-handle controls. There's nothing like the kind of flying the SILVAIRE will give you!

Although the SILVAIRE is way up in the clouds for quality, it's completely down to earth for price. Mail the coupon below to find out how easily *YOU* may own your own SILVAIRE. Luscombe's illustrated booklet, "Your Post-War Companion of the Clouds" gives full information.

JMLC:L-A1

SILVAIRE

AMERICA'S FIRST ALL-METAL PERSONAL PLANE

BY LUSCOMBE

LUSCOMBE AIRPLANE CORPORATION
Sales Promotion Department A-1
Dallas 1, Texas

Please tell me more about the SILVAIRE.

Name.....

Street..... City..... Zone...

PRODUCTION

Solar Develops Muffler Unit To Meet Lightplane Complaints

"Triple Unit" manifold, muffler and heater, made of stainless steel, designed to take advantage of protests against noise; prefabricated midget auto racer body also scheduled.

By SCHOLER BANGS

Solar Aircraft Co. of San Diego may cash in heavily on a nationally-felt surge of protest against unmuffled aircraft engines.

The company has developed for immediate production what it calls the "Solar Triple Unit," a single unit combination of manifold, muffler and heater for small personal aircraft.

► **Auto Racer**—In diversification contrast, the company also is ready to begin production of 98-lb. midget auto racer body kits for national distribution.

Solar's president, Edmund T. Price, claims for the "triple unit" a combined weight of less than 10 lbs. for two units required for a four-cylinder engine; interchangeability of right and left manifolds; an appreciable reduction in engine noise level; and ample heat for both the lightplane cabin and engine carburetor.

► **Stainless Steel**—A feature of the unit will be its manufacture from stainless steel to extend the manifold life well beyond that of the conventional mild steel manifold.

Solar's branching out into the manufacture of a midget racer auto body kit reflects both the company's interest in diversified manufacturing and readiness to adopt employee ideas.

Two years ago Elmer Ross, member of the Solar research staff and a veteran racer and owner of midget racing cars, cited a potentially large market for racer auto bodies, to be sold to racers wishing to spend their entire energy in power plant development rather than dividing time with the arduous shaping of bodies for their mounts. His proposal was tagged as a No. 1 post-war project, now in fruition with midget racing approaching a nation-wide boom stage.

► **Details**—The racer kit will consist of 15 die-shaped stainless steel units plus stainless steel wheels fabricated by Solar, the assembled car being engineered for rugged strength as well as easy replacement of crash-damaged parts. Marketing of the kit will be undertaken by Air Associates.

Price told AVIATION NEWS that

Solar, operating plants at San Diego and Des Moines, has reached the barrel bottom of conversion slump and now, with an employment of one-third its wartime peak, will begin gradual hiring to meet demands for new commercial and military production.

► **Jet Work**—Still restricted is detailed information concerning the company's jet engine parts manufacture and jet engine research. It is reasonable to assume that eventually may be induced to enter complete jet engine production.

Among the company's orders for stainless steel accessories is one for a lightweight manifold for trucks.

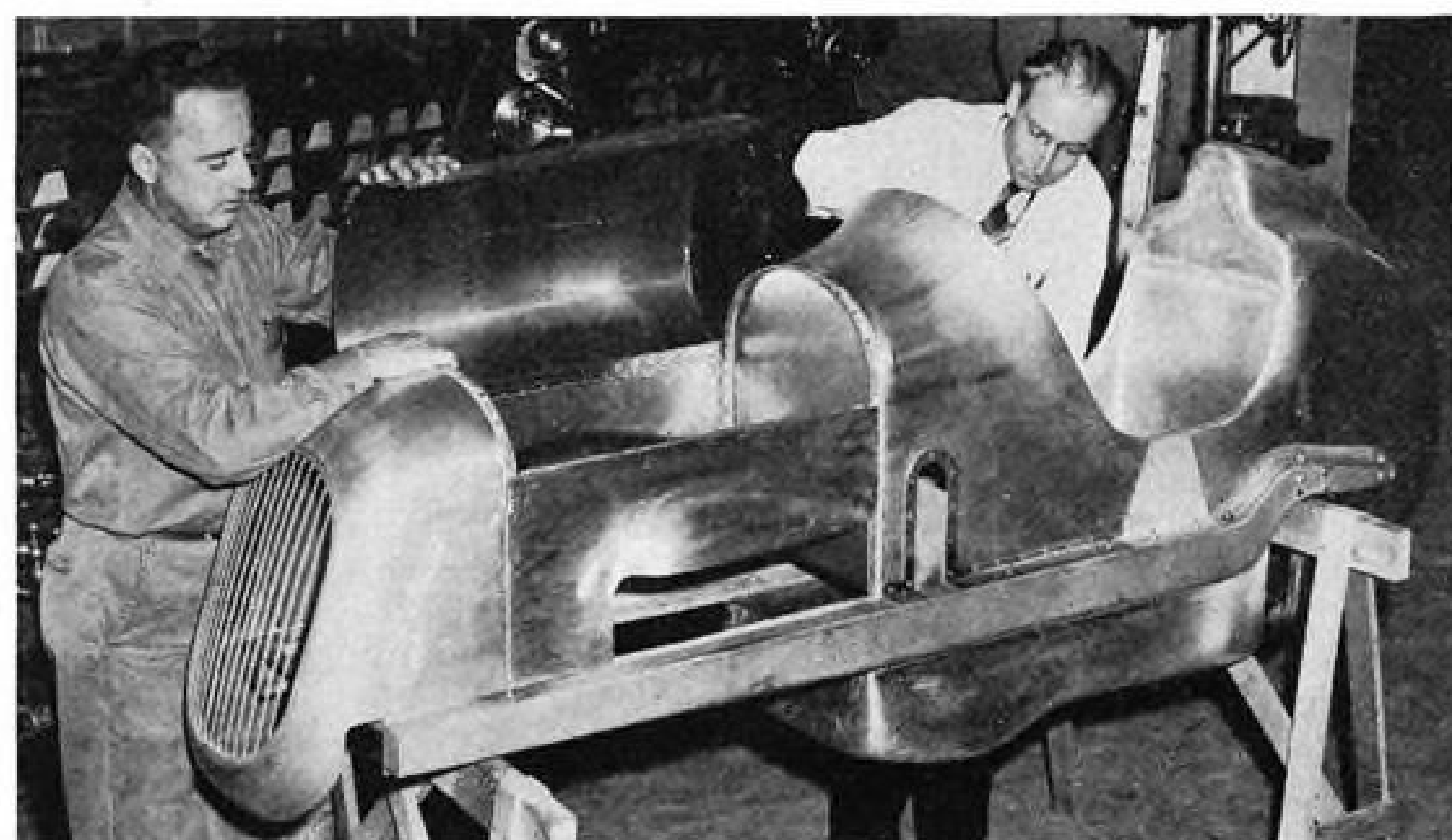
Price said his company has no intention of attempting to enter the kitchen appliance market, attractive to other aircraft companies.

H. E. Guerin Resigns As Douglas Plant Head

H. E. Guerin, whose "Guerin process" is credited by Douglas Aircraft Co., with having been the most important single invention for aircraft mass production, has retired as the company's Santa Monica plant manager after 25 years with Douglas. He is replaced by G. A. Huggins, former manager of the Douglas Long Beach factory.

Guerin's invention cut in half the number of metal dies needed for the processing of aluminum shapes. For the female die he substituted heavy rubber blankets which assumed the female die shape under pressure exerted when the aluminum sheet was stamped.

► Guerin's process became the property of Douglas, and through licensing agreements under which Guerin is said to have received a share in royalties, was adopted generally by the aircraft industry.



Solar Developments: Diversification in Solar Aircraft's post-war production is typified by midget auto racer body (left) and anti-noise unit (right) for personal planes.



Chute Plants Plan Non-Aviation Items

Three Reading, Pa., manufacturers to enter civilian textile field until aviation market stabilizes.

Three Reading, Pa., textile plants, which manufactured 691,500 parachutes for military use are planning non-aviation textile production for the immediate future, although one of the war-born plants expects to return to manufacture of aviation products.

The manufacturers and their war production figures, revealed this week: Aeronautical Supplies, Inc., 400,000 chutes; Reading Air Chutes, Inc., 250,000 chutes, and Vanity Silk Mills, Inc., 41,500 chutes.

Reading Air Chutes is credited with making important contributions in parachute development, by the war department, including a canopy which would slow the fall of a 2,000 lb. bomb dropped from only 100 ft. altitude. This chute was a late development, and production on it had only started at war's end.

John H. Guenther, president of Aeronautical Supplies, expects his company, which produced bomb, flare, aerial delivery and illuminating parachutes, principally of rayon, to return to aviation product manufacture in two or three years, after post-war equipment becomes more standardized. He contemplates among other products, a combination life preserver-parachute for passengers on seagoing airliners. But currently his firm is going into manufacture of fiber glass products, including shopping bags which can carry fast frozen foods for hours without thawing; cold frame insulators, and fiber glass blankets.

Vanity Mills returned to its pre-war production of rayon and women's silk clothing several months ago. The company turned out 10,000 nylon human escape chutes, as well as rayon cargo and aerial delivery chutes.

► **Jobs Up**—Samuel R. Fry, president of Reading Air Chutes, has announced his company has started production of rayon slips and lingerie, and by Jan. 31 expects to have 300 employees. Peak war employment was 500.

A statement by Fry, describing his company's wartime work, points out that his company pioneered in cargo parachute manufacture, producing heavy, rugged chutes for landing supplies and equipment, in four diameters, from 24 to 48 ft.

"The 36 and 48 ft. diameter

chutes," Fry said, "were made of 3¼ oz. basketweave nylon cloth, as strong or stronger than the 8 oz. rayon material used in the 24 and 28 ft. canopies. The gores were segmented and stitched on the bias. A parachute of this kind requires a great deal of special handling and Reading Air Chutes became a specialist in the 48 ft. size. This contained 175 lbs. of nylon, equivalent to more than 4,000 pairs of ladies full-fashioned hose.

"Cargo parachutes delivered loads of several thousand pounds each and were frequently clustered to sustain very heavy loads or retard rate of descent. The 48-ft. chutes were used in clusters of three to drop fully equipped boats to marine survivors who were shot down over the sea.

"Aerial delivery parachutes were produced continuously from Jan. 1943 until the close of the war. The aerial delivery parachute was of all-rayon construction containing 24 gores, each cut from one section of cloth, and approximately 24 ft. in diameter. They were equipped with harness and risers adapted to the standard aerial delivery pack, but were also adapted to landing of supplies in many forms. They were made in colors: red, blue, green, yellow, and white. The purpose of the colors was to identify specific loads in field operations. This type of chute was rated to carry a load of 300 lbs. for release at an airspeed of 150 mph., but was also adapted to clustering to sustain greater loads

when necessary.

► **Bomb Chutes**—"The conventional bomb parachute was designed to carry a 23 lb. fragmentation bomb which exploded on impact. This chute was approximately 100 in. in diameter, very heavily reinforced, and included a vented gore which relieved the opening impact against the canopy. The function of the bomb chute is to apply a brake to the bomb. This permits bombing from low level, holding the bomb on the target and still allowing the plane to escape.

"The Development Division at Reading Air Chutes, Inc., also created a parachute for dropping a 90 pound fragmentation bomb from 100 foot altitude and a series of parachutes strong enough to prevent the ricochet of very heavy bombs. Since bombs are dropped at airspeed of 350 to 400 mph., the parachutes must be of extremely heavy materials having high strengths, and frequently it is necessary to provide them with three vents to expel air fast and relieve impact load. Among items developed: M6, which stopped a 500 lb. bomb from 100 foot level; M7, adapted to stop 100 lb. and 250 lb. bombs and in the course of development at the close of the war, a parachute had been devised to stop a 1,000 lb. bomb successfully and, in addition, there was a parachute in the course of development designed to stop a 2,000 lb. bomb without ricochet. Large contracts for these were cancelled at war's end."



SURPLUS NO. 1,000:

Reconstruction Finance Corp.'s Los Angeles agency made its 1,000th surplus plane sale when this C-47 was bought by AiResearch Manufacturing Co. for conversion into a flying laboratory. Standing before the plane are J. C. Garrett, AiResearch president; James W. Carlyle, contract operator of RFC's Cal-Aero Field surplus depot at Ontario, Calif.; George M. Adams, RFC chief of surplus aircraft sales at Los Angeles; Stephen Breen, RFC assistant supervisor; and Eddie Bellande, AiResearch chief test pilot.

Square D Develops Airspeed Indicator

Development of a new maximum allowable airspeed indicator has been reported by the Square D Company, whose vice-president, Victor E. Carbonara, says that aeronautical development leading to flight speeds even greater than those already attained by experimental military aircraft will be assisted by quantity production of the new instrument.

Known as the Army-type F-4, the indicator will provide pilots with warning as their planes approach critical speeds that are a threat to control and structural limitation.

► **Compressibility Problems** — "Aircraft designers regard these instruments as a partial solution to the problems of compressibility phenomena, a point near the speed of sound when air surrounding a plane stops behaving normally," Carbonara said. "In enabling a pilot to anticipate these freakish shock waves, the F-4, besides its safety advantage will permit extensive study of our fastest planes at today's maximum speed limits."

Originally conceived by the Air

Technical Service Command and the Bell Aircraft Corp., the idea was translated into actuality by engineers of the Kollsman Instrument Laboratories of the Square D Company.

The F-4 airspeed indicator has two hands, a red one which indicates the maximum allowable airspeed and a white pointer which shows the plane's indicated airspeed. Thus the pilot needs only a glance to see that the speed registered by the white hand never exceeds that indicated by the red.

SAE Discusses Use Of Exhaust Gases

Discussions before the annual meeting of the Society of Automotive Engineers on ways and means of making more effective use of aircraft powerplant exhaust gases developed that many engineering problems remain to be solved before these waste products are fully used, with developments awaiting progress in metallurgy which will provide metals highly resistant to 3,000-deg. temperature.

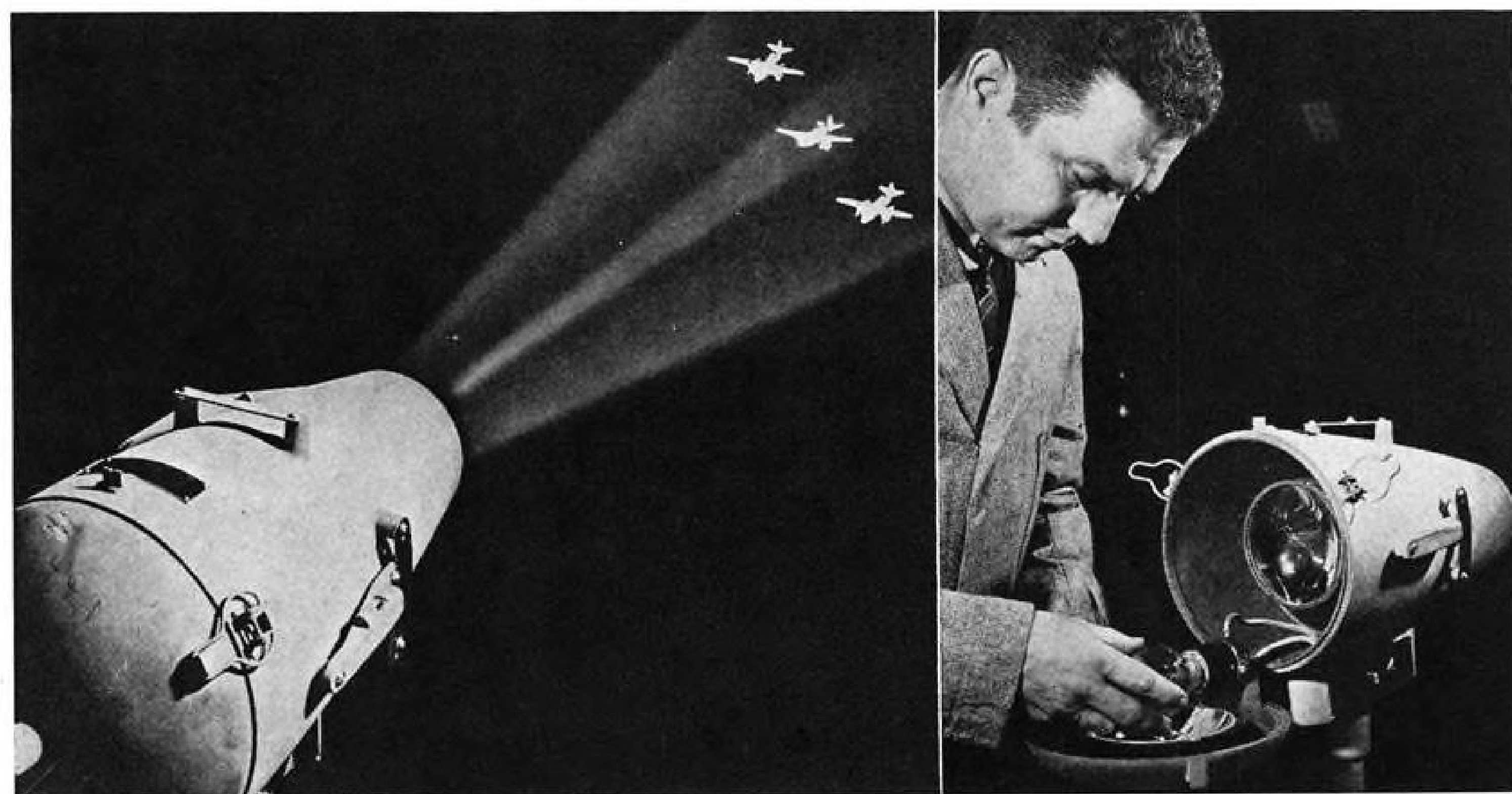
John J. Draney, of Consolidated Vultee, told the Aircraft Session that

waste exhaust gases can be used in a built-in system to de-ice aerodynamic surfaces. He said that with such a system properly designed and installed, commercial flights could be scheduled with safety during severe icing conditions, extending flying hours and reducing overall costs.

He proposed that exhaust heat be forced by jet pump through ducts within the structure to leading edge surfaces likely to become iced, and added that even the propeller hub similarly could be given ice protection.

Ralph L. Haver and Harry A. Goodwin, Jr., of Ryan Aeronautical, told the session that improved materials must be available before substantial progress can be made in utilizing exhaust gases, holding that stainless steel and iconel were inadequate.

They mentioned a new material designated as 19-9DL which was said to hold some promise, but added that its limitations are exceeded even before it has a chance to prove itself. Such materials, they said, must withstand temperatures of 3,000 deg. Fahrenheit and above, which means they must have a heat resistance better than double that of any material now available.



NEW APPROACH ANGLE INDICATOR:

Model planes show how the approach angle indicator developed by Westinghouse keeps pilots on the correct landing beam. The center plane is following the correct beam down the runway and a pilot following that path would see only green light in the indicator. The pilot of a plane in the top beam would see only an amber light, warning that he was too high, and the

pilot of a plane in the lower beam would see only red light warning him that he was too low. A single 100-watt lamp furnishes all the light for the indicator which can guide airplanes in the proper path to the airport runway from four or five miles away. This view shows the rear of the indicator with its light source and reflector.



The Sign of Happy Flying

When you land at your home airport or at a strange field on cross-country, look for the Esso Sign. It's the sign of Happy Flying...your assurance of courteous and dependable dealer service, of quality petroleum products especially engineered for flying.

There are over 500 Esso Aviation Dealers between Maine and Texas who stand ready to serve you with quality gasolines, rust preventives, and engine, hydraulic and instrument oils. The products they handle are backed by more than 40 years of continuous aviation experience and the most complete

research organization in the petroleum industry.

Because of the know-how and experience that stand behind them *you can be sure Esso Aviation products are quality products.*

YOU CAN DEPEND ON



AVIATION PRODUCTS
SOLD IN THE 25 STATES INDICATED

NOW AVAILABLE... Three brand-new Esso Aviation gasolines! Clear, unleaded 80 octane; improved grades 91 and 130 with reduced lead content and higher performance numbers.

INCENTIVES FURNISH THE DRIVE

THE COMING YEAR, 1946, and the years to follow can bring unprecedented prosperity to the people of the United States if the incentives to secure it are provided.

We have the advantage of starting with an economy which has demonstrated a capacity for expansion unequalled in any other country in the world. Our economy has demonstrated, also, one grave weakness—a recurring interruption of the upward trend of production and living standards by wasteful and paralyzing periods of recession. Recovery from each depression always has carried us to new heights of economic welfare, but the toll of the years of blight has been harmful to everyone.

The job ahead of us is a dual one. We must maintain the vitality of an economy which, over the years, has yielded an enormous increase in the American standard of living, and we also must improve its stability.

The Dynamics of American Production

In the last prewar year, 1940, the population of the United States was $3\frac{1}{3}$ times as large as it was in 1870. But the national production, measured in dollars of constant purchasing power, was 10 times as large at the end of the period, and industrial output had increased 20-fold.

In the meantime, the average number of hours of factory workers had been reduced from about 63 per week in 1870 to less than 40 in 1940, while average hourly earnings had more than trebled in dollars of constant purchasing power. Thus "real" weekly or annual wages in manufacturing had doubled over the 70-year period, even though the work-week was cut by 35 per cent. This was made possible chiefly by a tremendous increase in the quantity and quality of the mechanical facilities which were provided in American manufacturing industry. Manufacturing capital investment per worker was multiplied by 6 times over the period in question. But the

return per dollar invested, while it has fluctuated widely between good years and bad, showed no general upward trend over that portion of the period for which measurement is practicable.

Incentives in American Manufacturing

There has been, historically, a remarkably consistent pattern in the division of the realized income from the expanding manufacturing output of America. Reliable statistics are not available for as far back as 1870, but from 1899 through 1939 the average share of wages and salaries has been $82\frac{1}{2}$ per cent against $17\frac{1}{2}$ per cent as the share to investors (including dividends, interest, rents, royalties, and non-corporate profits). There have been, from year to year, relatively minor divergences from this pattern of distribution, but there is no discernible trend during the period away from the averages cited.

It is suggested that the persistence of the average $17\frac{1}{2}$ per cent share of realized income from manufacturing that was maintained for the 40 years preceding World War II may represent the proportion that is needed to produce the dividends, interest, rents, royalties, and non-corporate return that will provide for the continuing investment upon which an expanding productivity such as we have had in the past depends. At any rate, it would seem reckless to depart too radically from such an established pattern at a time when unprecedentedly large private capital investment is counted on to make up for the drastic curtailment of such investment during the war years, and to carry us to the new high levels of civilian production set as our postwar goals.

The Distribution of Manufacturing Income in War

At the beginning of the war, the Government adopted controls and a tax program designed to prevent wartime activity from resulting in un-

duly swollen private returns. Due primarily to huge volumes, the profits *before* taxes of manufacturing industry were very high, but throughout the war its profits *after* taxes averaged returns no larger than they had been in good prewar years. Relative to volume, they were considerably lower than in prosperous years in the past. Again, there can be no complaint at results that generally were in accord with a national war-time policy.

But it is fair to note that the wages of manufacturing labor were allowed to increase substantially during the war. Between January 1, 1941 and April, 1945, average weekly earnings per worker increased by 77 per cent. This was, in considerable part, a result of increased working hours and a shift from low- to high-paid industries, but straight-time hourly earnings on the same jobs increased about 40 per cent against a cost-of-living rise of about 30 per cent.

The net result was to alter drastically the 40-year relationship of the $17\frac{1}{2}$ - $82\frac{1}{2}$ per cent division of Realized Income from Manufacturing. The share of wages and salaries increased to over 90 per cent, and the investment share shrunk to less than 10 per cent.

Its Postwar Distribution

This wartime shift in the proportion of distributive shares has an important bearing upon current wage controversies. With union demands for wage increases ranging up to 30 per cent, and the economists of the Office of War Mobilization and Reconversion asserting that an average increase of 24 per cent is feasible without raising prices, it is pertinent to inquire how such increases would affect the prewar ratios that governed realized income distribution in manufacturing.

Forecasting is always hazardous, but if we assume (1) that in 1946 we shall reach the \$160 billion level of national output which the Government proponents of general wage increases expect, and (2) that there will be little increase in productivity because of the continuing process of reconversion, and (3) that the Government will succeed in carrying its announced purpose

to maintain present price ceilings, it appears that a 24 per cent general wage increase would reduce the share going to capital from $17\frac{1}{2}$ per cent to 11 per cent even allowing for its increased return resulting from the repeal of the excess profits tax. The prewar ratios would be about maintained if wages remained at present levels.

Conclusion

Since the maintenance of these prewar ratios was accompanied by an unparalleled rise in the "real wage" of American workers, there is a powerful *prima facie* case for not tinkering with them. It should be noted, however, that some economists think that the size of the investment share of manufacturing income tends to provide more capital than can be absorbed by a mature economy, and thus contributes to those breaks in the expansion of the economy which, as stated at the outset, have been its principal blight.

Regardless of what may ultimately prove to be the validity of this view, no one can responsibly contend that at this early but crucial stage in the reconversion process is the time to test it. Now, no one knows whether, or what dimension of, additional wage increases can be supported without forcing up prices or reducing profits to a point that will discourage vitally needed private capital investment.

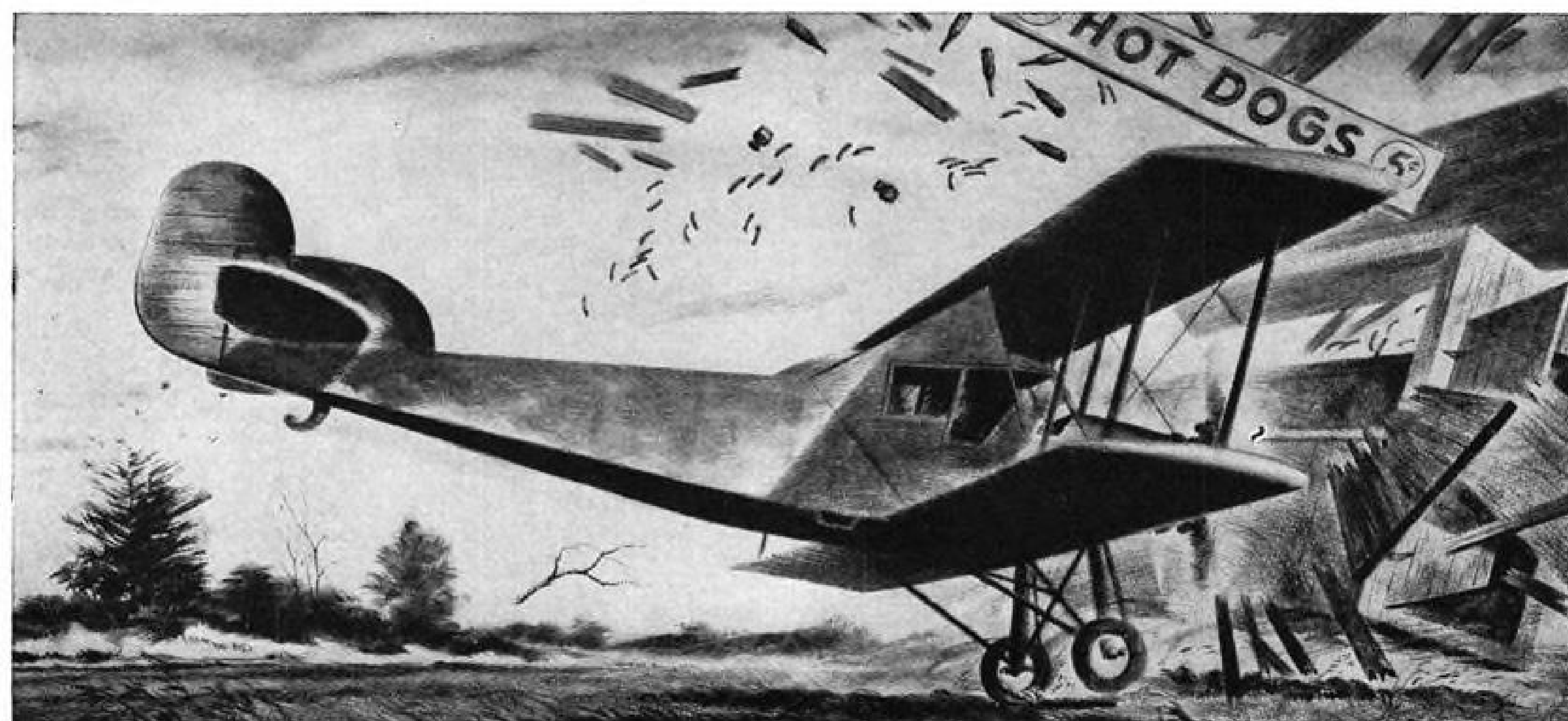
We want high and increasing wages in American manufacturing. We need them to provide an active incentive to workers to support expanding productivity, as well as to continue the trend of rising living standards in America. Equally, we need a continuing profit incentive of sufficient attractiveness to call forth the new investment upon which expanding productivity depends.

We can never attain our dual objective if we push one of these aims so far and so fast that it defeats the other.



President, McGraw-Hill Publishing Co., Inc.

THIS IS THE 43RD OF A SERIES



The plane that flushed an idea from a hot-dog stand—

WITH all the improvements on today's planes, it seems strange to think that airplanes haven't always had parking brakes.

Back in the early days of flying, Eddie Stinson landed at a small field in Northern Michigan with a passenger.

Ready to take off, Eddie found that his starting battery had gone dead. So he told his passenger to open the throttle a little bit while he started the motor by

pulling the propeller through.

The motor started with a roar! The passenger, confused, had pushed the throttle wide open. Eddie jumped clear as the plane roared down the field.

But dead ahead was a hot-dog stand that couldn't jump!

The plane tore into the stand. At 1650 r.p.m., the propeller churned mustard, pop, hot dogs, and buns into a froth.

Only then did the passenger recover enough to cut off the ignition.

The hot-dog stand cost Eddie Stinson \$350, plus a new propeller. But it showed him a way to make planes safer!

Two days later he had rigged up a parking brake to operate with brakes on landing wheels.

Years of flying showed Eddie Stinson what fliers needed and wanted in a plane. So the first Stinson he built, back in 1925, was a plane ahead of its day. Besides brakes, it had an enclosed cabin, an electric starter, and a cabin heater.

Because Stinson has always been a leader, you can depend on Stinson to bring you the best in quality planes.

...

Announcing **THE STINSON VOYAGER 150**...Here's a four-place ship that will bring you *speedy, safe, and comfortable* air travel.

And air-travel luxury such as you have never seen before, except with larger, more expensive planes!

The Voyager 150 cruises at 125 m.p.h., has a maximum speed of 133 m.p.h., and a range of 500 miles. Its power, maneuverability, and high-altitude performance make it a *versatile plane anywhere*.

And the appointments of the Voyager 150 match its performance. Its cabin is soundproofed and ventilated. You'll fly in comfort on its richly upholstered, adjustable seats.

And economically, too! For costs of operating the Voyager 150 will compare favorably with the cost of operating your car.

Write for a free illustrated brochure telling all about the Voyager 150... to Stinson Division, Consolidated Vultee Aircraft Corporation, Wayne, Michigan.



Manufactured under Civil Aeronautics Administration Approved Type Certificate Number 767

Stinson

EASY TO BUY...EASY TO FLY

Stinson Division, Consolidated Vultee Aircraft Corporation, Wayne, Michigan

SPECIAL AIR SERVICES

CHARTER

NON-SCHEDULED

INTRASTATE

BUSINESS BOOMING

At Least 12 New Freight Lines Expected Soon on West Coast

Air terminals receiving flood of inquiries from organizers in search of base facilities; potential shippers ready to fill all cargo planes which become available.

Availability of surplus C-47s and primary arithmetic may be expected to induce the appearance on the West Coast of up to a dozen new non-scheduled air freight companies within the next few months.

Air terminals are receiving a flood of inquiries from organizers of such companies, seeking hangar, shop and tie-down facilities.

► **Airports**—With an eye on business which undoubtedly will develop between the United States and Mexico, Long Beach Municipal Airport and Los Angeles Airport probably will receive port of entry designations within the month.

There is every indication in the Southwest, and at Los Angeles and Long Beach, that air freight carriers can fill as many C-47s as they can obtain with perishables for eastern markets at rates ranging from 15 to 26 cents per ton mile. Whether the lure of this market will lead to a disastrous overlooking of hidden ground operating costs remains to be seen.

► **New Services**—One of the most recent freight-seekers to start flight operations is Pacific Air Cargo Co., headed by H. J. Greinert, and based at Los Angeles Airport. At the same airport Los Angeles Air Service has begun operations as a charter company using a C-47 for either cargo or passenger hauling.

Seeking space at Los Angeles Airport is a third company, National Air Cargo Corp., headed by S. J. Jackson, ex-Army flyer, whose optimism is typical:

► **Prospects**—"I could use today any number of cargo planes our company could lay its hands on. With C-47s our negotiated rates, dependent on volume and our ability to sign return load contracts, will range from 15 to 20 cents per ton mile," he says.

"A 2400-mile cross-country trip

with 6,000 lbs. at 20 cents per ton mile offers a one-way return of \$1,440. We can make good money on that basis. And there is no reason why a C-47 can't carry, with minimum fuel loads and more frequent refueling stops, a payload of 8,000 lbs."

► **Glider**—Jackson's company initiated experimental service Dec. 6 with a C-47 towing a Laister-Kauffman CG4A glider and a combined freight load of 6600 lbs. from St. Louis to Los Angeles. He says of the test: "We learned that straight glider tows do not pay, but we were close enough to breaking even (a 12 percent profit loss) to believe that we can use gliders profitably in a pickup service which will qualify the charging of higher

Airborne Orchids

Growers and importers of domestic and foreign orchids on the West Coast believe that within the space of a few months practically all of their distance-shipped consignments will be airborne.

They foresee the chartering of entire planes for special "orchid flights" cross country in meeting seasonal demands for the luxurious blooms.

► **Hawaii**—Restoration of commercial air service to Hawaii already has resulted in renewal of orchid shipments, and more than one speculator in novelty flowers is considering the use of chartered planes to harvest and market orchids from Mexico and Central American jungles.

rates to fly perishables out of produce areas which can be served by gliders but not by heavy transport planes."

Principal hazard of such non-scheduled operations, and one that few beginning operators seem to consider, is the ease with which potential profits may be leveled and even dipped into red ink by unforeseen operating contingencies.

► **Handicaps**—While the small non-scheduled company is not confronted with the heavy overhead of regular airlines, which must maintain large ground crews and build-



READYING NEW PLANES:

National Skyway Freight Corp., expanding its non-scheduled air freight operations, has contracted with North American Aviation, Inc., for modification of two of five surplus C-47's which the line purchased recently. North American has turned to modification of military transports to use a portion of its war-expanded factory space and labor force. Shown here, as the first C-47 was turned over for modification, are (left to right) George McIntyre, NSF maintenance chief; Gary Stroh, North American superintendent; Robert King, NSF chief radio technician, and Thomas Haywood, NSF chief engineer.

ing facilities at regular landing points, it faces serious cost handicaps by the very lack of such a service organization.

Weather is a serious business risk in that the non-scheduled air freighter may be forced to put down at an airport which has little or no refueling or maintenance equipment. If servicing facilities are available they are likely to be primarily for the use of airlines renting the equipment, or owned outright by the airlines.

► **Costs**—The non-scheduled freighter is subject to the delay of receiving service when and if the regular airline can give it as a convenience. He also can count on having to pay retail prices for fuel and oil, and top prices for maintenance and repairs when obtainable.

A minor accident and repair job easily may cancel a trip contract, from the time standpoint in movement of manufactured goods or from the standpoint of spoilage in shipment of perishables. With one and two-plane companies the effect of a washout accident easily will delay earning power indefinitely in the light of the present scarcity of flyable equipment.

It is highly possible that recognition of these factors accounts for the apparent unconcern of scheduled air carriers over the threat of non-scheduled encroachment on their business.

► **Base problem**—However, some air terminal managers are concerned over the surging expansion of non-scheduled services, and they foresee the inability of their airports to provide space for the new companies.

Also, one Southern California air terminal manager also is concerned with the obligation he feels that his municipal airport owes to air freight customers regarding the performance ability of non-scheduled companies using the airport.

He reports that during the past week he has received 15 inquiries for space from prospective non-scheduled operators, but will enter into no rental agreements until the prospective renter has given satisfactory showing of his company's financial stability and operating ability.

► **Responsibility**—He told AVIATION NEWS:

"Air freighting overnight has become so glamorous that it behooves every airport manager to protect the eager shipper and investor alike against a non-scheduled company that conceivably may be organized wholly as a shoestring stock promotion venture."

Matson Line Keeps On Its Toes

Still kept on the sidelines with other surface carriers, Matson Navigation Co. will maintain through an aircraft overhaul and modification service at Oakland, California, the nucleus of an airline operating organization.

In the meantime, F. A. Bailey, Matson president, will combat the threat of air encroachment upon his company's rich Hawaiian tourist trade by advertising the attractions of shipboard leisure and rest aboard Matson surface liners.

► **Plans** — Matson's Air Transport Division, headed by T. A. Schmidt,

busy during the war with the overhaul of Naval Air Transport Service planes, will begin commercial modification and overhaul with an investment of \$150,000 in new tools and equipment, and will occupy two hangars at Oakland Airport.

Indicative of Matson's "watchful waiting" for the time when the company may gain a certificate to fly to Hawaii is a company publicity release stating that "pilots and other flight personnel" are maintained on the personnel roster of its Oakland Airport operation.

Farmers, Air Industry Urged to Cooperate

Most promising field for initial development of air cargo is in the field of agricultural products, Eugene E. Wilson, chairman of the Aircraft Industries Association, believes.

Wilson, who also is vice-chairman of United Aircraft Corp., told a dinner meeting of the National Council of Farmer Cooperatives that aviation and agriculture, working together, can in the near future revolutionize food and produce marketing for the benefit of the whole nation.

► **Cooperation**—The two should act together to speed development of air transportation to create additional employment and income, as well as contribute importantly to national security, Wilson said, adding that each industry had accomplished the impossible during the war and should now cooperate for equally vital peacetime objectives.

"Aviation and agriculture already have completed experiments which demonstrate that with the cooperation of government, farmers, shippers and the trade, great increases in the volume of fresh farm produce shipped by air are to be expected in the near future," he said. "For example, it has been authoritatively estimated that almost one-third of the fruits and vegetables shipped from out of the great Winter Garden area might go by air, if the air freight rate could be brought down to 10 cents per ton mile, a foreseeable goal."

► **Hurdles**—He listed as important among factors now retarding a reduction in rate "arbitrary Government restrictions which prevent the use by operators of the full potential of cargo aircraft specially

designed for the job of carrying farm produce."

Wilson suggested that agriculture and aviation should work with shippers to remove these and the other barriers to steady development of transport types especially needed for the air cargo job.

National Skyway Freight Increases Fleet to 11

Addition of five surplus C-47's to the National Skyway Freight Corp. fleet, and removal of operations and maintenance base from Long Beach to the Los Angeles Municipal Airport, has been announced by Robert W. Prescott, president.

All the C-47's are being modified as cargo carriers, with insulation, thermostatic heat control and double size cargo doors. Two of the planes are being converted at North American Aviation Corp.'s new modification plant at Inglewood, California. The remaining three are being converted by Globe Aircraft Corp. at Ft. Worth, Texas.

► **Fleet**—With the new planes, the line, also known as the "Flying Tiger Line" will have eleven planes.

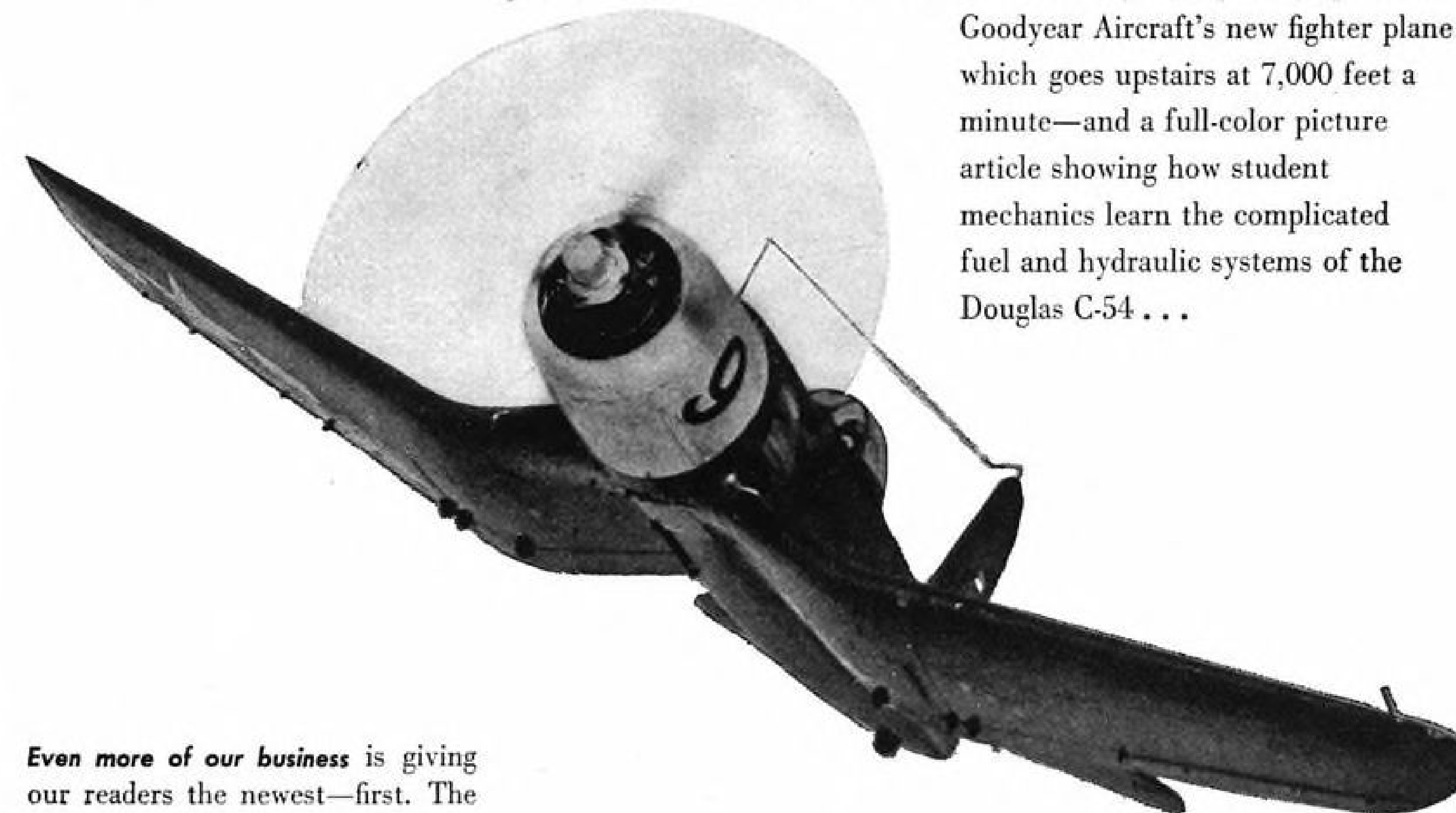
Canadian Transport Board Schedules Two Hearings

The Canadian Air Transport Board will hold hearings in mid-January on applications for commercial non-scheduled charter services applied for by Leavens Bros., Ltd., Toronto, for a service out of Leamington, Ont., to anywhere in Canada, Newfoundland and the United States, and by Aircraft Industries of Canada Ltd., Montreal, for a service to any point normally within a radius of 500 miles of Montreal.

Give 'em plane facts!

We're continuously giving 'em plane facts, because Mechanix Illustrated has the kind of readers who expect facts. They want details, too—the kind of down-to-earth truth that comes in handy when they're up in the air. They go for such a full-page item as "Sky Signposts" in the December Mechanix Illustrated—it's a quiz on map symbols and airway signs. A professional, an amateur or just an air-minded groundling can get the answers if he doesn't know them. But there's plenty more in that December issue—including clear photographs of

Goodyear Aircraft's new fighter plane which goes upstairs at 7,000 feet a minute—and a full-color picture article showing how student mechanics learn the complicated fuel and hydraulic systems of the Douglas C-54...



Even more of our business is giving our readers the newest—first. The "flying wing" (pictured at right) for example, is just being tested now. But our authoritative article, complete with photographs and colored diagrams, has already been read by the men who bought the December Mechanix Illustrated—and judging from their response, we really published something in "Something New on the Wing"!



The magazine that makes plane facts exciting



"Carrying more aviation advertising because Mechanix Illustrated is largely an aviation magazine, we do not apologize for the pun—we've been plane talkers a long time!"

But—planely*—it's your business...to tell your story to the greatest air-minded market in the country, the young, eager, coupon-clipping readers who are making Mechanix Illustrated the most up-and-active magazine in the aviation field.

Fawcett Publications, Inc., 295 Madison Avenue, N. Y. 17

World's Largest Publishers of Monthly Magazines

PERSONNEL

Prescott A. Tolman Named Sales Director of EAL

Prescott A. Tolman has been appointed director of sales for Eastern Air Lines. Tolman has just been released from the Marine Corps and before going into the service was with Eastern for seven years in the traffic department. Tolman's headquarters will be at the line's main office in New York.

W. T. Beebe, personnel manager of the Pratt & Whitney Aircraft Corp. of Missouri, has been appointed personnel manager of Hamilton Standard Propellers division of United Aircraft Corp. succeeding James P. Jeffrey who has resigned, having joined Hamilton in 1940 and leaving to go to United in 1944.

Carl A. Posey has been assigned by the Civil Aeronautics Administration as its liaison officer with the Caribbean Defense Command and consultant to the governments of Central and South America on airport construction problems. Posey will be stationed at Balboa, Canal Zone. He recently completed a year's mission for the CAA in Costa Rica and Venezuela, where he advised on airport problems.

Three New Appointments Are Announced by CAA

John Easton (left) has been appointed deputy chief of the technical development division of the Civil Aeronautics Administration. He is returning to CAA after three years with the Whiting Corp. where he was

director of development. David S. Jenkins (right) has been appointed as chief of the airport development section and Joseph Baum has been named assistant to the aircraft control officer.

Marshall Bannell has been appointed eastern division public relations director of American Airlines System with headquarters in New York. He succeeds Peter J. McDonnell, who resigned to become associate director of public relations for Abbott Kimball Co., advertising agency. Bannell is a former newspaper man and served in a public relations capacity with Pan American Airways.

Lt. Col. Harvey K. Miller, on terminal leave from the Air Transport Command, has been appointed superintendent of operations for Air Cargo Transport Corp. Prior to his entrance into the Army, Col. Miller was assistant supervisor of maintenance for American Airlines for eight years. Before that he was a chief mechanic for Eastern Air Lines.

H. M. Wales has been named sales manager of aviation electronic equipment for the transmitter division of General Electric Co.'s Electronics Department. He will have charge of sales of the GE personal plane radio, portable radio for aircraft, airborne VHF equipment and other aviation electronic products of the division. Wales, formerly with GE, was a pilot in the Army Air Forces.

Frank C. Barker has been appointed superintendent of communications and ground operations for Northeast Airlines following a consolidation of the ground operations and communications departments. This post was created to centralize responsibility and authority and to provide closer cooperation. Before joining Northeast in 1936 Barker was with National Air Transport and Eastern Airlines.

Justin R. Laing has been appointed by the General Petroleum Corp. as its aviation representative for Oregon



TWA VICE-PRESIDENT:

Brig. Gen. Julius C. Holmes, who figured prominently in some of the war's most important diplomatic missions as a member of General Eisenhower's staff, and who has been named a vice-president of Transcontinental & Western Air, Inc., in charge of international relations in conjunction with the airline's overseas operations.

and Southern Idaho. He will aid communities in the development of air centers. Laing previously was airport manager and chief pilot for the Lewis School of Aeronautics, Lockport, Ill.

Julia Benton Hopkins formerly examiner for the board of governors of the Federal Reserve System, announces her recent resignation as tax counsellor for PCA to engage in the practice of law specializing in tax and aviation law, with offices in Washington.

R. C. Hogan has been named sales engineer on aviation products for The Goodyear Tire and Rubber Co., Inc. Hogan has been with Goodyear since 1933 and was in charge of fuel tank development for Goodyear during the war.

J. M. Shelby, former district traffic manager for Braniff Airways in Ft. Worth before joining the Air Transport Command, has returned to the airline. He joined Braniff originally in 1936 and the same year was promoted to district traffic manager. Capt. Shelby was at headquarters in Washington as chief of plane space control for the North Atlantic wing sub-unit and later was appointed executive officer of the European wing for priorities and traffic.



TRANSPORT

U. S., Britain Begin New Attempt To Resolve Air Transport Fight

Each apparently enters Bermuda conference as set as ever on having its own way, however, and firmly adhering to the standpoint it held when Chicago session ended.

The United States and the United Kingdom will attempt in the Bermuda civil aviation conference opening tomorrow to resolve the controversies that presently threaten to split the world into two warring spheres of influence in the field of international air transport.

They have tried before on several occasions, notably at the Chicago civil aviation conference in November-December, 1944, and indications are that this time each party begins negotiations as adamantly determined on having its own way as ever.

No Concessions—The United States, anxiously endeavoring to get its air routes established around the globe, is in no frame of mind to make concessions to Britain that might later be generalized into multilateral concessions which would undo much of this country's success to date in selling freedom-of-the-air.

Britain, unable to inaugurate services for several months, has nothing to gain by haste and is in a strong bargaining position, as even American authorities acknowledge, to win her argument for partial controls on at least the airlines between the United States and the United Kingdom.

Situation—Although the two countries went far toward compromising their differences during the course of the Chicago conference, indications are that they enter the Bermuda conferences with all bets off, each participant adhering to its final position at Chicago.

Thus the United States will, (1) oppose frequency controls, (2) oppose any kind of formula designed to divide carrying capacity, (3) seek "unrestricted" application of the Fifth Freedom of the Air and (4) probably will take the position that if rate controls are to be instituted at all, it should be the function of carriers and not of governments.

The British will reiterate their

generalization that "uneconomic competition" must be eliminated. They would accomplish this through frequency regulation, adjustment of seating space to traffic offering, fare controls and tight restriction of the Fifth Freedom, if they accept it at all.

Atmosphere—The foregoing leaves out of account, however, one extremely salutary factor in the Bermuda picture, that is, that the personality conflicts of Chicago are not likely to be present this time. The strong differences persist but lack of good will seems to have disappeared or at least to have diminished to a point where it is negligible.

To emphasize the United States intention to retain the maximum degree of bargaining power, the Civil

Aeronautics Board last week at the last minute withheld judgment on the traffic conference agreement framed by the International Air Transport Association in October at its Montreal meeting.

It was felt, according to reports, that action on the IATA agreement just as the Bermuda conference was about to begin, might have weakened the United States position. Thus this country now enters a new air conference with Britain still having given no official show of approval of rate-making in the manner Britain desires.

Conference Postponed—The North Atlantic traffic conference therefore had to postpone its meeting until Feb. 1 after convening for ten minutes Jan. 8. This was done, a statement said, because it would "not be appropriate to proceed at this time in the light of the announcement of the Civil Aeronautics Board."

The Board had said that "in view of the imminence of the conference with the British, the Board concluded that the public interest of the U. S. requires that any further consideration of a decision" be deferred.

Delegates—Delegates to the Bermuda conference are:

American: Col. George P. Baker, head of the Office of Transportation and Communications policy in the



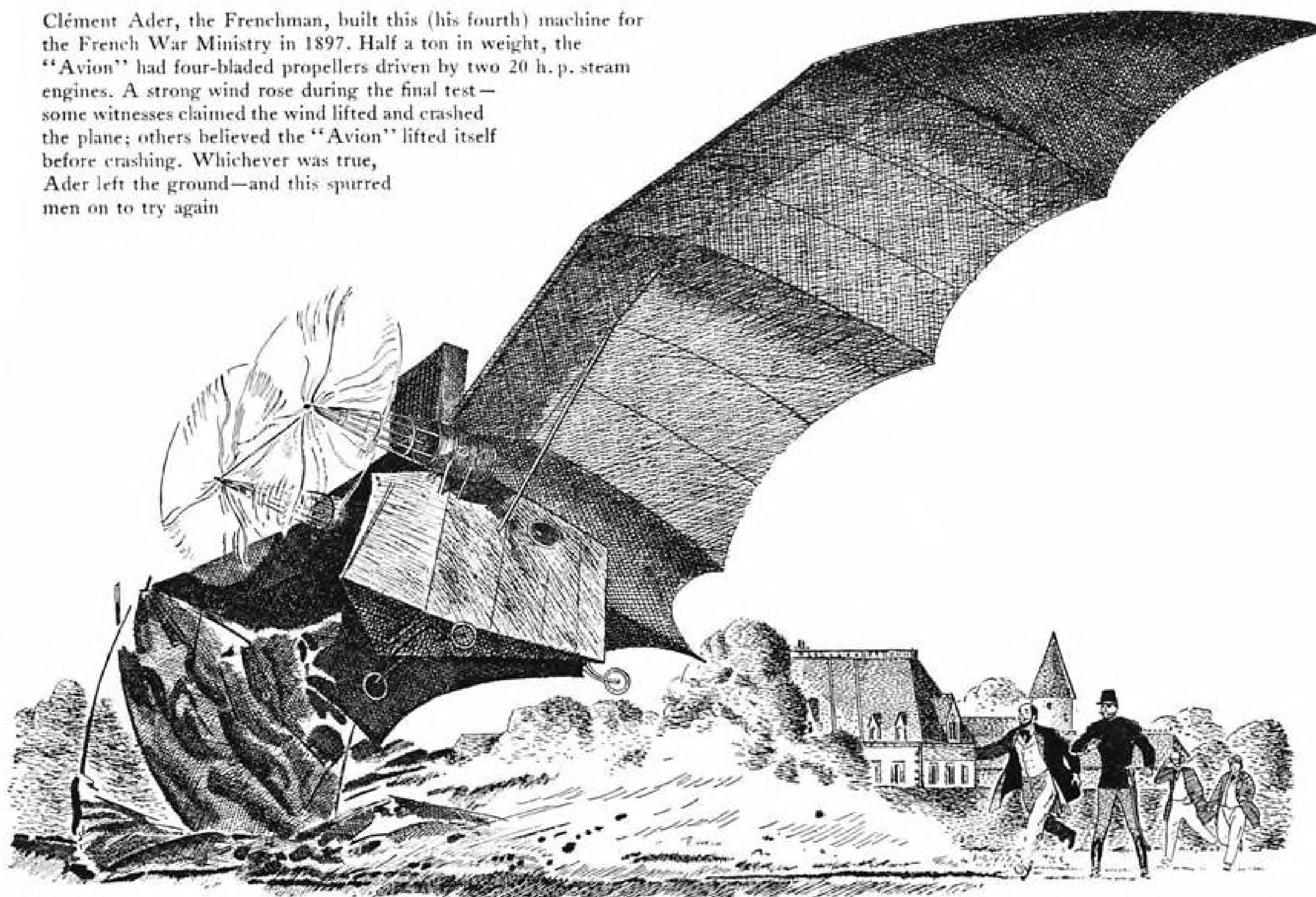
EAL TRAVEL AGENTS MAKE 1946 PLANS:

Regional travel representatives of Eastern Air Lines met at New York recently to talk about 1946 travel trends and resumption of commissions to travel agents. Left to right around the table are: George E. Michael, manager of EAL's Travel Department, who called the meeting; Miss Gertrude Roche of Boston, New England Division agency manager; Charles Ricker of New York, Northern Division agency manager; Frank Mattix of Detroit, Great Lakes Division agency manager; Trond Sundem of Miami, Southern Division agency manager; Thomas White of New York, agency representative, and Leo J. Cafferty of Chicago, Central Division agency

The Wreck of ADER'S "AVION"

(Suppose men had quit trying after that)

Clément Ader, the Frenchman, built this (his fourth) machine for the French War Ministry in 1897. Half a ton in weight, the "Avion" had four-bladed propellers driven by two 20 h. p. steam engines. A strong wind rose during the final test—some witnesses claimed the wind lifted and crashed the plane; others believed the "Avion" lifted itself before crashing. Whichever was true, Ader left the ground—and this spurred men on to try again.



THE AVION was an aviation milestone. Inquisitive air-minded men learned from the behavior of that early flying machine—and, with added knowledge, went on to build better planes.

That progressive process has never stopped. Through the years Northrop has been a part of it, contributing many an aviation "first" to produce better, safer and more efficient airplanes.

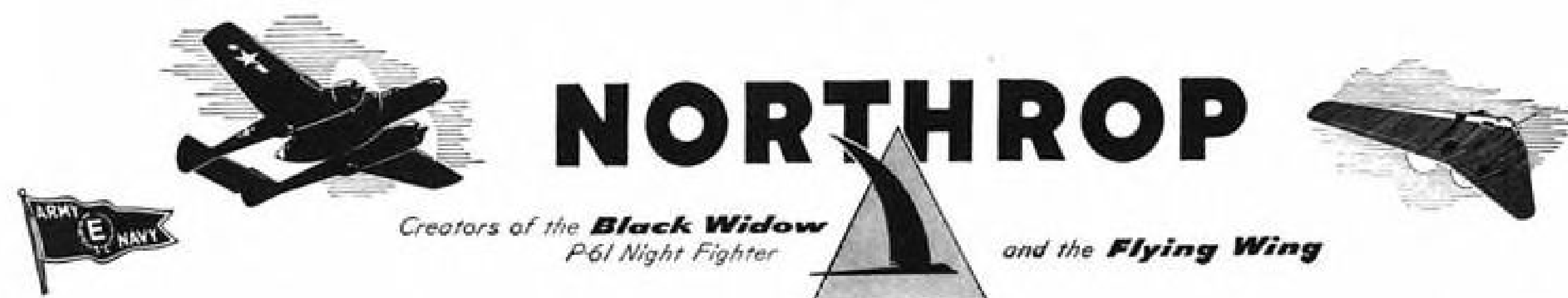
For instance, in 1930, the Northrop "Alpha" was the newest thing in aviation. The first all-metal, stressed-skin monoplane with multicellular wing structure, it flew across the U.S.A. in 22 hours. Yet "Alpha" was old in 1934—by that time Northrop's "Gamma" was pioneering the stratosphere and flying

the same distance in less than 12 hours.

Even the revolutionary planes of war (including Northrop's own P-61 Black Widow) are no longer "new." Soon you'll be seeing the Northrop Flying Wing. A huge airplane without fuselage or tail, a design that is nearly all lift!

This obsoleting the old and improving the new is one thing that must continue. For better aircraft can help peace-loving nations insure their peace. And better aircraft can help underwrite prosperity through cheaper, safer, faster world travel and commerce.

The job ahead for aviation is still big. So big, in fact, that it can be accomplished only by an industry that continues to be strong and progressive.



State Department; Garrison Norton, deputy director of the Office; Stokeley Morgan, chief of the Department's Aviation Division; L. Welch Pogue, CAB chairman; Oswald Ryan, Harlee Branch and Josh Lee, CAB members, and George Neal, CAB's general counsel.

British: Sir William Hildred and L. J. Dunnett, of the Civil Aviation Ministry; N. J. A. Cheetham, of the Foreign Office; Major J. R. McCrindle, of British Overseas Airways Corp., and Sir Henry Self and Peter Masfield of the British diplomatic representation in Washington.

► **Agenda**—The Bermuda conference, in addition to attempting to settle the economic questions outstanding between the two countries, will consider commercial use of military air bases built with American funds and materials on British soil during the war. These include the 99-year lease bases in the Western Hemisphere as well as a number of other important ones around the world.

In a formal statement, Baker said last week that the two countries "appear to be far apart" on "important issues," but he was confident "that the same overall approach between the two countries will bring as successful an agreement in civil aviation as was accomplished in telecommunications five weeks ago."

► **Pressure**—American sources reiterated last week their opinion that the large success this country is having in winning adherents to freedom-of-the-air is influencing Britain to re-examine its opposition.

Latest addition, according to Prague reports, to the Fifth Freedom advocates was Czechoslovakia which reportedly signed a bilateral agreement last week. Turkey, which has ratified the Convention on International Civil Aviation, is reported about to sign a similar agreement.

Buffalo to Intervene

Deviating from past policy, the City of Buffalo will formally intervene in aviation matters affecting it when CAB hearings are held within the next few weeks, Corporation Counsel Fred C. Maloney has announced. Corporation Counsel Casimer T. Partyka, Buffalo's legal expert on aviation and airport matters, will testify.

Maloney said he will make a thorough study of the city's past policy of not intervening at CAB hearings on airline applications.

Land to Take Over At ATA Jan. 16

Shelves plan for vacation after leaving shipping posts; Ramspeck already on job.

Emory S. Land plans to go to work as president of Air Transport Association Jan. 16, day after his resignation is effective as chairman of the Maritime Commission and Administrator of the War Shipping Administration.

He would like to take a little time off, he told AVIATION NEWS, but "they've waited for me long enough."

At ATA it was said the presidency was offered the retired vice admiral at least two months ago. Acceptance hinged on White House reaction to his withdrawal from the Maritime Commission and WSA. The resignation was accepted some days ago, effective Jan. 15.

► **Air Background**—Land will go to the Association as a neophyte, to use his own word, but his record shows that he is far from entering a new field. He learned to fly at Naval Air Stations at Pensacola, Fla., and Anacostia, D. C., in 1922, and was a naval aviator and observer. From 1928 to 1930 he was vice president and treasurer of the Guggenheim Fund for Promotion of Aeronautics, and from 1923 to 1928 was a member of the Army and Navy Helium Board and National Advisory Committee for Aeronautics. He was assistant chief of the Bureau of Aeronautics from 1926 to 1928.

It appeared last week that Land will be the second of the new triumvirate of ATA officers to go on the job. Robert Ramspeck, former Georgia representative in Congress, held his first industry meeting last week as the Association's new executive vice-president when plans were mapped for ATA participation in the recent air mail conference with Post Office Department officials.

► **Arnold**—Milton W. Arnold, new operations and engineering vice-president, was in the hospital with the flu and it looked as though some time might go by before he is able to start work. Arnold recently left the Army where, as brigadier general, he was acting chief of staff of the Air Transport Command.

The Association will need more space to accommodate its present personnel, clerical and executive staffs of its new executives, and increases under its expansion pro-



Robert Ramspeck

gram (AVIATION NEWS, Jan. 7). Hence it has leased an eight-story building near its present headquarters.

Expectation is that ATA will be using two floors of the building by Feb. 1, and probably all of it by April 1. Some of the departments will move as fast as the new quarters are available, while others, including the executive offices, will remain where they are until the final move.

Administration Building Planned at Seattle

The Port of Seattle at Seattle, Wash., expects to call bids in February or March for construction of a \$2,000,000 administration building at the Seattle-Tacoma airport, built during the war by the Civil Aeronautics Administration.

Plans call for a five-story reinforced concrete structure, 150 x 470 ft., plus two-story office wings and a one-story 350 x 135 ft. garage. The building will be of most modern construction, with a filtered humidified air conditioning system, acoustical treatment, six freight and three passenger elevators, insulation and fire doors.

TCA Rate Ruling

Trans-Canada Airlines rates between Victoria and Vancouver were raised Jan. 1 to equal those of Canadian Pacific Airlines. CPA runs a local service, while TCA is permitted to carry local traffic between the two cities on its transcontinental route because of the aircraft shortage. The rate ruling was made by the Canadian Air Transport Board at Ottawa, on complaint by CPA against lower TCA routes, after an investigation of operating cost.

Realistic Approach to Problems Characterizes Airmail Meeting

Post Office Department, CAB and airline officials confer in Washington to discuss study of possible revenues if all first class mail were carried by plane.

By MERLIN MICKEL

A new active and realistic approach to domestic air mail problems characterized last week's Washington meeting of Post Office Department, Civil Aeronautics Board and airline officials. Significantly, it was the first conference of all three groups to discuss this situation.

The fact it was called by postal officials was seen as encouraging evidence of the department's recognition of the increasingly close-knit relationship between its responsibilities and those assigned in the Civil Aeronautics Act, which states that the Civil Aeronautics Authority shall consider "encouragement and development of an air-transportation system properly adapted to the present and future needs . . . of the postal service. . . ."

► **Study Prepared**—Specifically, the Post Office desired to acquaint CAB and the industry with a study completed by Inspector George E. Miller, showing the effect on postal revenues of carriage of all first class mail by air, at varying rates of postage, possibilities of carrying parcel post by air, international postage rates and related subjects. It was the first time such detailed information had been made available.

Expressions at the meeting pointed to the time all first class mail will go by air, but even the Post Office department officials, generally thought to favor such a move, made no prediction as to when that time might come. Miller's data demonstrated that the profit on first class mail has been offsetting a defi-

cit in other classes, and reduced profit from first class mail, such as could be expected if all of it were carried by air, might result in an overall loss to the department. This brought up the old question of extent to which mail in second and lower classes might be subsidized.

► **Profit**—The inspector's study showed that while first class mail alone would still show a profit of \$82,000,000 if all were carried by air, the department's overall loss would then be \$121,000,000 a year, without addition of new employees. The loss would increase if employees were added. He said further that reduction of air mail postage from 8 to 5 cents an ounce, with first class mail continuing to go by surface carrier, would still mean a \$10,000,000 profit on air mail, although there would be an overall deficit of \$96,000,000.

Reduction of air mail fee to 5 cents is supported by the airlines. Robert Ramspeck, new executive vice-president of Air Transport Association, asserted ATA would support legislation for the 5-cent rate, and favors a gradual reduction until no distinction remains between air mail and other first class mail. He said carriage of parcel post by air suggested many problems, including priorities and rates. Air post cards are not favored by the airlines if they entailed subsidies. Ramspeck urged adequate airmail handling facilities at airports, and, to further air mail use, proposed that the department consider all forms of promotion, especially by local postmasters, and a program of

advertising, posting air schedules, and similar devices.

► **Facilities**—Miller told the 150 persons who packed the hearing room that facilities for handling mail are adequate at only two of the 29 airmail fields now used. He selected 39 points for principal fields, and urged secondary facilities at 174 more.

Increases in the number of airline planes were advocated by Lt. Gen. Harold L. George, commanding general of the Air Transport Command, who said he wants to see a great air transport fleet as an "adjunct to air power."

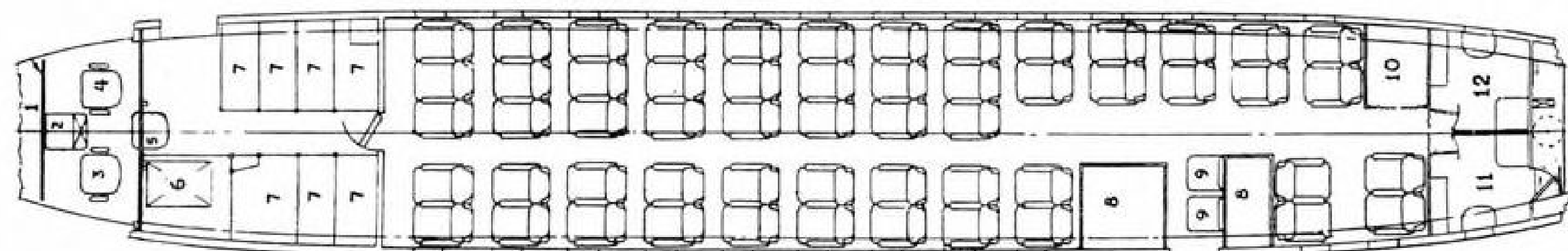
56 Seats Provided In PCA C-54's

The converted C-54's being placed in service this month by Pennsylvania-Central Airlines will provide a seating capacity of 56 passengers with 22 seats on one side of the aisle and 34 on the other.

Rear wall of the cabin has been moved about 6 ft. aft. At the front there are seven baggage compartments. Coat room is at the back. Two hostesses will serve meals from two buffets. Men's and women's lavatories are back of the cabin. Conversion also entails reinforcement of the floor structure, and installation of hardwood floors, a new cabin heating and ventilating system, soundproofing and cabin lining. Seats will have individual reading lights, and there are heat ventilators and parcel racks. Cabins are being equipped with an oxygen high pressure system.

► **15 on Way**—PCA is putting 15 of the planes into service at a conversion cost of about \$275,000 each. First to join its present fleet of DC-3's is one of the 12 basic C-54's allocated to the company last October.

It will be used between Washington and Chicago and Washington and Norfolk. Remainder of the 15 are to be in service by the end of spring.



Floor Plan of 56-Passenger DC-4: Drawing shows seating arrangement of PCA's converted C-54's. Numbers refer to (1) instrument panel, (2) pedestal, (3) pilot's seat, (4) co-pilot's seat, (5) observer's seat, (6) radio

compartment, (7) baggage compartments, (8) buffets, (9) hostess seats, (10) coat room, (11) men's lavatory, (12) women's lavatory. Eight rows of passenger seats accommodate three each and 16 two each.

Flexible Feederline Patterns Are Urged

CAB New England Area Case oral argument highlighted by New York Port Authority proposal.

Establishment of flexible local air service patterns on a sectional basis was urged on CAB last week by the Port of New York Authority.

The proposal highlighted oral argument in the New England Area case, fourth to reach the Board for decision. Board members displayed interest in methods of devising such patterns.

► **Suggestions**—Based on the ideal of some type of air service for all communities of substantial size, the Port Authority, in the case as intervenor, said the pattern should include:

► **Feeder service** linking towns of reasonable size with trunkline junction points.

► **Market service** linking cities and towns in a local region with those centers where community of interest lies.

► **Service linking major traffic generating centers** with major vacation and recreational areas.

To effect "non-trunkline" service at the many communities, the authority suggested issuance of "flexible certificates" giving the operator leeway as to exact communities to be served on particular trips and allowing him to adjust service to seasonal and other variations in demand.

► **Danger**—Citing a view expressed by Board Member Oswald Ryan on the danger of states acquiring control through intrastate regulation, the Authority contended that CAB would be fostering this if it pays inadequate attention to development of local service.

Examiners in the case have recommended Wiggins Airways of Norwood, Mass., for three-year temporary certification for nine feeder routes in Southern New England, Colonial Airlines for permanent extensions of AM 72, and Northeast Airlines for a route from Burlington, Vt. to Portland, Me., via intermediate points, on a three-year trial basis (AVIATION NEWS, Oct. 8).

► **Plea**—Wiggins and the Commonwealth of Massachusetts, intervenor, pleaded for five-year temporary certification, contending that three years would be insufficient to demonstrate feeder service potentialities. They also reminded the board that a five-year basis for

Surplus Allocations

Two domestic airlines received six C-54's last week from the Surplus Property Administration in its 23rd allocation. In all 22 four-engine and three two-engine planes were allotted.

Three C-54A's went to United and two to Northwest, which also received one C-54B. A C-41 (which SPA describes as an earlier, passenger version of the C-47) was allocated to Civil Aeronautics Administration.

Other allocations—Five C-54A's went to the Netherlands Government; four to the Netherlands Indies Government; two to Charles A. Christman, New York City, whose firm will convert and resell them; two to Edward L. Traylor, Washington, acting as agent for the purchasers; two to Latin American Airways, and one to The Hearst Corp. One C-53 was allocated to Scottish Aviation and one to Aero Portuguesa.

equipment depreciation is customary.

Skyway Corp. of Providence, R. I. proposing helicopter service exclusively, argued that suitable equipment is so near the market it will be available before the Board's decision. Denial of its application now, Skway said, would be to "lose important advantages of early experimentation."



TCA PUTS LORAN IN SERVICE:

TCA is using LORAN radar equipment on its trans-Atlantic Lancaster transports. The Long Range Navigational equipment allows accurate fixes at well over 800 miles from the transmitting station in daytime and over 1,400 miles at night, with better-than-celestial accuracy. Photo shows a LORAN viewer in use by a TCA navigator on a trans-Atlantic Lancaster.

Examiners Barron Fredricks and Joseph Fitzmaurice recommended denial of Skyway's application, however, on the grounds that helicopters would not be available "within a reasonable time."

Braniff Buys 18 202's, PCA Orders 15 More

Additional orders for 33 Martin 202's totalling around \$7,000,000 were announced last week. Fifteen will go to PCA for approximately \$3,000,000 and 18 to Braniff Airways for more than \$4,000,000.

Braniff becomes the fifth airline to order the twin-engine transport which is expected to be available early in 1947. PCA's order is a renewal, following by less than two months its order for 35, the first to be placed for the new airliner which is especially designed for short-haul operations.

► **Total Orders**—The commitments brought to 155 the number of 202's now on order, with total value close to \$35,000,000. Martin also is converting C-54's for both companies.

Elsewhere, Pan American Airways received delivery of the first of 20 Lockheed Constellations. The 43-passenger four-engine ship was flown from Lockheed Air Terminal to Miami and thence to LaGuardia Field, New York. PAA expects to put it in service on the North Atlantic this month.

Bargaining Between ALPA, Airlines Seems Headed for Showdown

Operators present united front, name committee headed by Damon to represent all in negotiations; offer of \$15,500 for ocean work turned down by pilots.

By BLAINE STUBBLEFIELD

Bargaining between the airlines and ALPA, the strong Air Line Pilots Association, over pay and working conditions, seems headed for a showdown.

The operators, presenting a united front in lieu of company negotiations, by agreement have appointed a committee headed by Ralph Damon, president of American Airlines, to negotiate with ALPA, especially on flying converted C-54 equipment in intercontinental service. The agreement has been filed, in accordance with law, with CAB, which will either approve or disapprove it. The Board might possibly issue an opinion, but this is unlikely.

► **No Statement**—Dave Behnke, ALPA president, is reported to have declined comment at his Chicago headquarters, saying that release of information to the press on the negotiations was a breach of faith. Officials of the Air Transport Association said they would suggest to the airlines wage negotiation committee that it issue a clarifying statement at an early date.

Observers have predicted for years that when the supply of qualified pilots, trained at government expense for war, far outran airline requirements, operators would take issue with ALPA, which has come near being a closed shop, on steadily increasing salaries.

► **Pilot Surplus**—Thousands of discharged military transport pilots, qualified on two- and four-engined equipment, are available, after refresher and route time, for airline service. Certain airline officials say they will hire these men, at rates much lower than those demanded by ALPA, unless a satisfactory agreement is reached. They said also that they would put qualified executives and superintendents in the cockpits if necessary.

Current union drives in other industries are supported by a shortage of manpower, whereas the pilots are faced in their demands by the competition of non-union applicants for the jobs.

► **CAB Powers**—CAB, in making rates for the airlines, has taken

cognizance of various cost items, including salaries. Apparently there is no ground on which the Board could legally interfere with pay scales arrived at by collective bargaining under the Railway Labor Act, as provided by the Civil Aeronautics Act. Nevertheless, since pilot pay affects the cost of airmail service, express service and the public interest in travel, it is believed the Board could strongly influence conclusions in this controversy. On American flag foreign services, the Board has no rate authority except to prevent discrimination, preferential treatment, and prejudice.

Airline officials confirmed reports that they had offered the pilots \$15,500 per year for intercontinental operations, and \$12,500 for domestic service, and that these offers were not accepted and are now withdrawn. Thus negotiations by the newly-appointed committee presumably start from scratch except where contracts are in effect. They said it was true that the pilots had asked for \$22,500 on international runs, and \$18,500 on DC-4s on domestic routes. This would be for eight-year seniority men working 85 hours per month.

► **Committee**—The airlines labor negotiation committee consists of representatives of American Airlines, Braniff, Eastern, United, TWA, and PCA. The others have given the committee power of attorney to act on wage contracts, on all types of equipment, including DC-3's.

TWA officials confirmed reports that their trans-Atlantic operations have been held up since Dec. 20 by failure to reach agreement with the pilots. One spokesman for another company said in his opinion the pilots are "conducting a silent strike."

► **Retroactive**—It is understood that any agreement reached between the wage committee and the pilots on pay scales for DC-4s will be retroactive to the start of operations. Presumably the pay rate on TWA 307 Stratoliners is being considered as a yardstick.

Delta To Use Purser

Passenger service aboard the 44-passenger DC-4's Delta plans to have in service this spring will include a purser in addition to the usual stewardess.

Delta says it will be the first use of a flight purser on domestic airlines. The purser's duties will include responsibility for passengers during flight, collection of tickets and loading of passengers, and supervision of loading and unloading of cargo and mail.

The Air Transport Command told AVIATION NEWS that in July it had 8,584 pilots qualified to fly four-engined airplanes; in August it had the war-time high of 8,815; in September 8,641; October 5,836; and in November 4,928. Probably 1,000 more have been discharged since the figures were compiled. This means that nearly 5,000 four-engine pilots, all capable of flying two-engined planes also, are out of service, and an unknown number of them seeking jobs. The Navy also has discharged several thousand, the exact figure not immediately available.

Discussion of Airports Scheduled in California

The first attempt to develop a complete answer to all objections to airports will bring together civic planners of two major West Coast counties, Los Angeles and Orange, in a special meeting in Glendale, Calif. Feb. 10.

The conference has been called by the Planning Congress of Los Angeles County to determine what can be done to overcome opposition to airports. A portion of the meeting will be devoted to a round-table discussion between one or more airport opponents and airport proponents.

Sacramento Airport Vote

Sacramento, Calif., voters soon will vote on a \$300,000 bond issue which, with another \$300,000 to be provided by the Federal government, would be used to improve Sacramento Airport, shortly to be restored to city use by the Army. Major changes planned include zoning, a central administration building, taxiways, ramps, sewers, water, electricity, single hangars, garages and additional land.

AiResearch Actuators FOR HIGHEST PERFORMANCE—LONGEST LIFE OVER 55,000 NOW IN USE

ACTUATORS—AiResearch makes a complete line of electric actuators for military and commercial aircraft—engineering and manufacturing the motors and all component parts. In the last two years 28 different models, which are variations and combinations of 8 basic torque and linear types, have been produced.

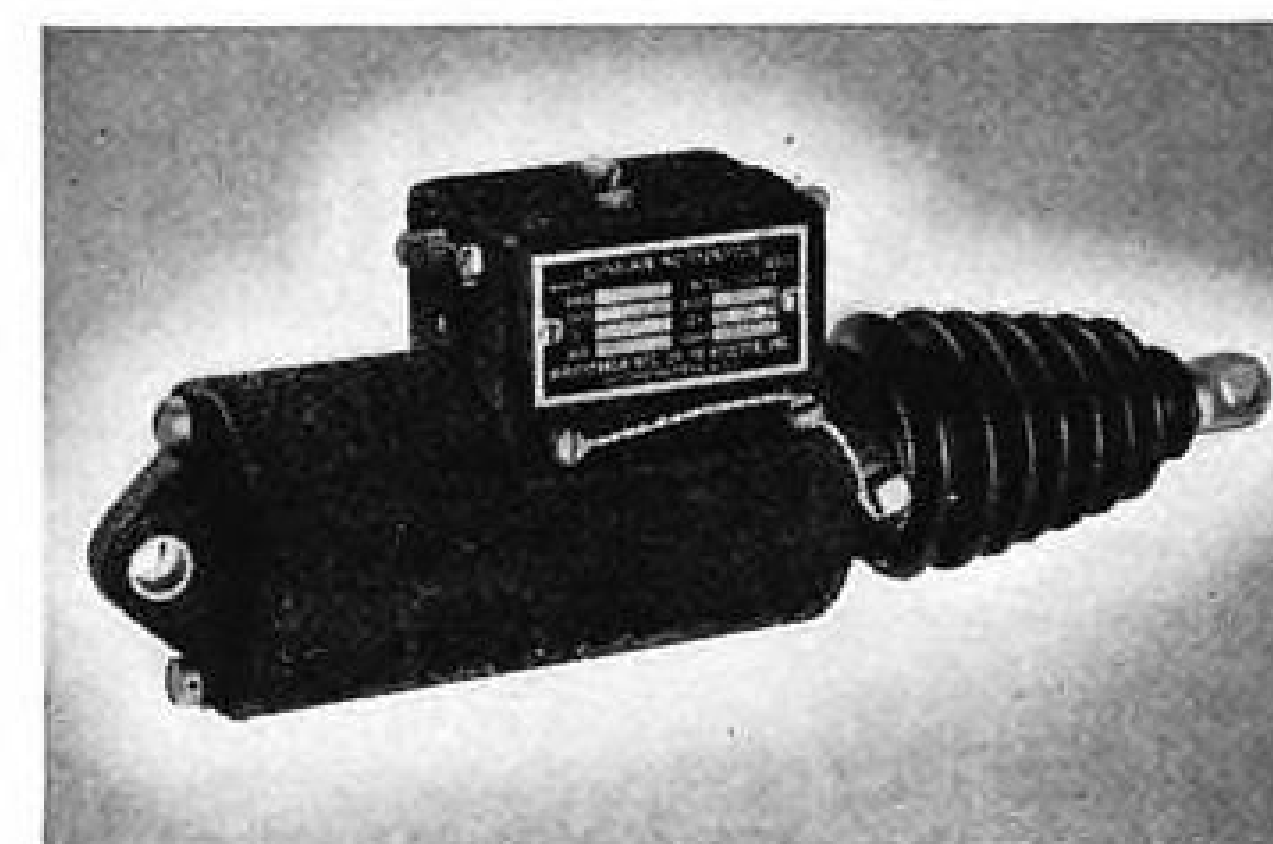
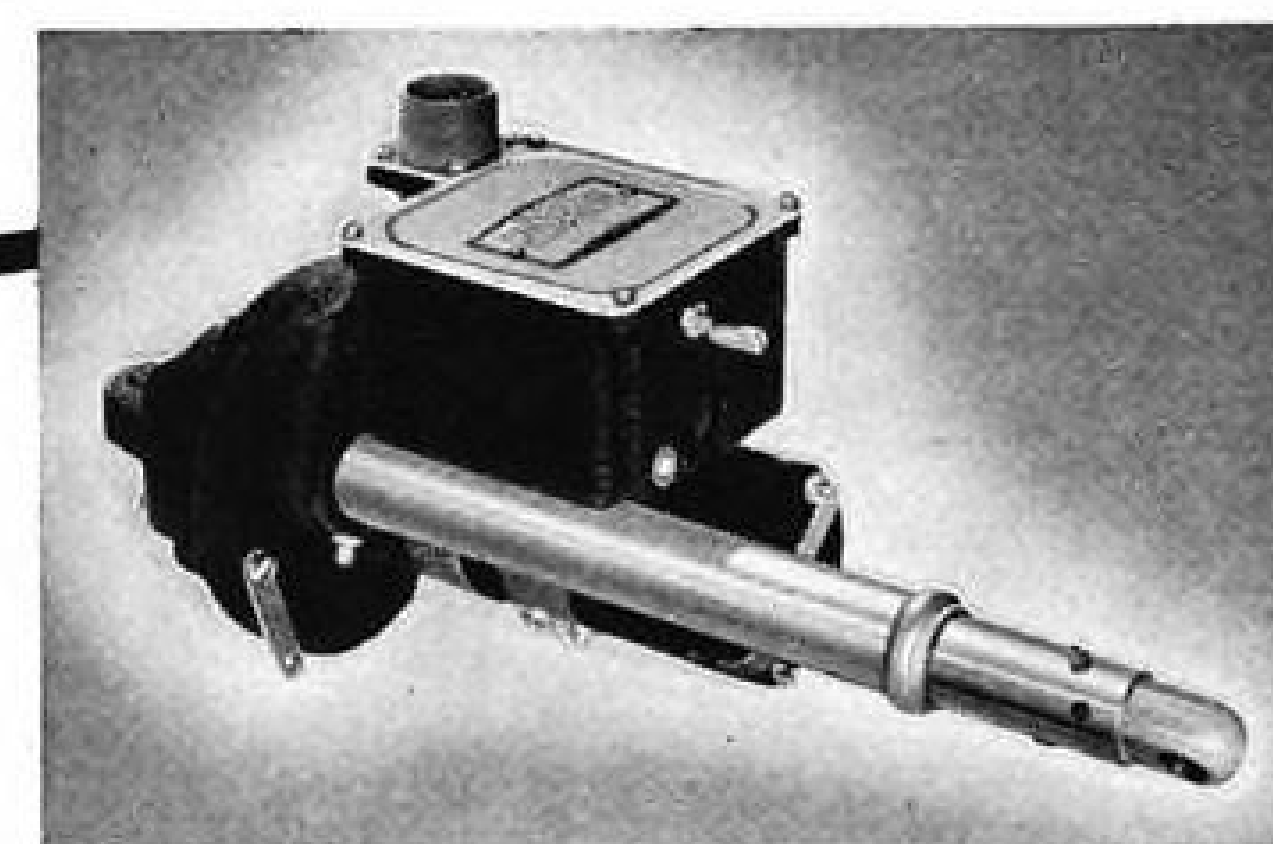
First to build the linear type actuator, AiResearch has recently made another contribution to the development of actuators in a simplified brake which will stop a 10,000 R. P. M. actuator motor in from 4 to 5 turns. All AiResearch actuators are relatively trouble free... designed to perform over extremely long life cycles... for they have a great re-

serve of strength and durability. Ratings of the 8 basic actuators now being built are: 100, 300, 750, 800, 1200, 1600, 2000 and 10,000 pounds.

In tests AiResearch actuators have raised 2000 pounds 10,000 times *without failure*. And they have been run through 60,000 complete, normal operational cycles during which the motor made 300,000,000 revolutions—equal to the normal life of two transport planes.

AiResearch actuators are famous for their quality, modern design, light weight, efficiency and greater potential life.

For further information on any specific problem, write AiResearch Manufacturing Company of Los Angeles, Calif.



MOTORS—AiResearch has designed and is now building 400 cycle single and three phase motors for actuators, a unique development in the aircraft field. They range from 1/50 to 1/4 horsepower and are equipped with the newly developed AC brake. Each is small, compact, precision built and designed to operate under extreme conditions, including temperatures ranging from -65 degrees to +165 degrees F.

AiResearch — manufacturers of AIR CONTROL equipment for military and commercial aircraft • Cabin Pressure Regulating Systems • Engine Oil Cooling Systems • Supercharger Aftercooling Systems • Temperature Control Systems • Engine Intercooling Systems • Automatic Exit Flap Control Systems

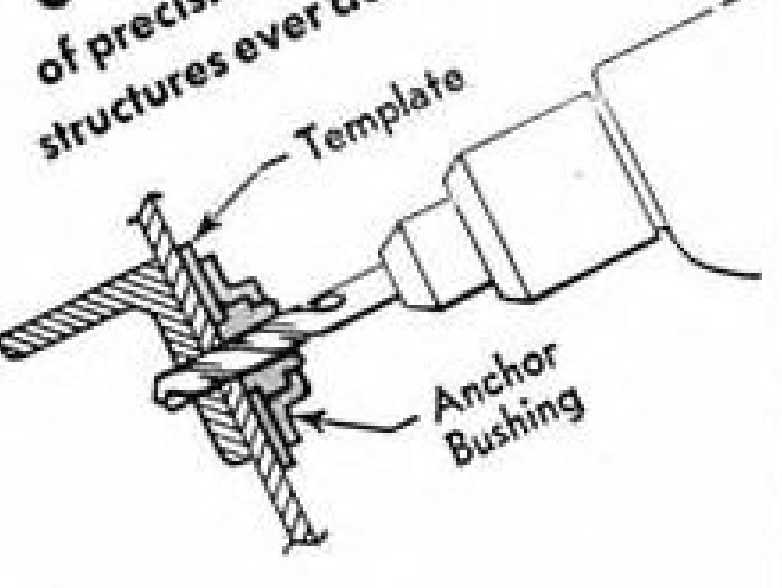
AiResearch
DIVISION OF
THE GARRETT CORPORATION

THE
* *Anchor Bushing* **WAY**



● Shortens your lofting and tool making timetable by weeks and permits complete tooling for unlimited "production".

● Check the most flexible method of precision tooling for sheet metal structures ever devised.



A description of the "Anchor Bushing Method of Apply Template Making" is yours for the asking.

Write Attention: Dept. E
* Trademark Reg. - Patents Pending

THE HISHOUR RIVET TOOL CO.
1559 Sepulveda Boulevard
Hermosa Beach, Calif.

PICAO Resumes Work After Holiday Recess

Air Navigation Committee holds first meeting of new year; Interim council schedules first 1946 session for Jan. 21.

Its holiday recess over, the Provisional International Civil Aviation Organization set to work again in Montreal last week with the Air Navigation Committee holding the first of the new year's meetings.

It was devoted mainly to the reports of various technical subcommittees, now officially termed "divisions," which have been piling up steadily. Latest completed include those on search and rescue, landing areas and ground aids, rules of the air, and aeronautical maps and charts.

► **Schedule**—Other new subcommittees which will hold initial meetings before the end of the month include those on personnel and licensing, accident investigation, facilitation of international air transport, and airline operating practices.

PICAO's Interim Council will hold its first meeting of the new session Jan. 21.

Fresh from a trip to Dublin, London and Paris to prepare for regional conferences on air navigation facilities, Dr. Edward Warner, Council president, held a press conference at which he announced officially that the North Atlantic Conference in Dublin would begin March 4, to be followed by the European region discussions in Paris on April 8.

► **Major Task**—It was expected that about 100 delegates, advisers and staff would attend the Dublin meeting, Dr. Warner said, and "considerably more" at the Paris discussions. They will probably last two or three weeks.

Major task of these conferences—the North Atlantic mostly concerns air transport on this continent—is to arrange for the continued operation of air navigational facilities set up during the war for military needs. This involves first deciding what specific facilities are useful for commercial transport and then working out a plan for distribution of expense of their upkeep.

► **Operation**—In many cases it is expected that the nation in which particular stations are located will undertake the operation and cost. Maintenance of establishments such as weather ships on the high seas and meteorological stations in Greenland, however, must be shared



TWA TRANSACTION:

Principals in TWA's recent sale of \$30,000,000 in 3 percent sinking fund debentures at par and accrued interest to the Equitable Life Assurance Society were Mrs. Margaret Potter Ewell, left, assistant secretary of TWA, and Miss Helen B. Taylor, assistant secretary of Equitable. The money will be used largely for purchase of 36 Constellations. In addition to being the first time such a large-scale equipment program has been financed with a long-term unsecured loan of this type, the transaction is believed to be the first of such size in which two women executives signed the papers.

by all the states in proportion to the interest involved.

The PICAO route service conferences, as they are to be known, also will have to decide on procedures, arrange for publication of navigational information, and make allowances in their final plans for anticipated future development. Above all, they will strive, through application of PICAO standards and recommended practices, for world uniformity.

Reading, Penna., Schedules Airport Improvements

Reading, Penna., has increased its appropriation for airport improvements in 1946 by \$100,000 because of anticipated expansion in commercial and civilian flying. The airport budget was set at \$116,000.

City council recently engaged Gilbert Associates, Reading engineers, to draw plans to convert the field from "a 90 percent military installation to a 100 percent commercial enterprise."

► The Reading Army Air Field, which occupies most of the airport, has been placed on inactive status and all military planes removed, Lt. Col. Frank H. Barber, commander, announced.



DOWNPAYMENT:

A \$25,000 downpayment for Pan American's famous Dinner Key seaplane base at Miami is received by James E. Yonge, PAA attorney (left), from A. B. Curry, Miami City manager. The city is buying the base, which includes a terminal building and three hangars, for \$1,050,000, and will convert it into a yacht center.

SAE Session Hears Weather Discussions

Airline representatives warn against hasty revision of current instrument landing procedures.

Methods to alleviate air traffic jams and bad weather holdups at airports were suggested at last week's meeting of the Society of Automotive Engineers in Detroit by John F. Gill, chief check pilot for Eastern Air Lines, and E. A. Cutrell, who returned to American Airlines last week as superintendent of flight development. Both are stationed at LaGuardia Field.

Gill cautioned that any improvements based on present air navigation and traffic control systems must necessarily be a temporary expedient, since future traffic volume will require "much closer flights on airways than current facilities can tolerate." Therefore he feels an entirely new approach to the problem may be necessary, with "promising solutions" offered through principles of radar and television.

► **"Wishful Thinking"**—Cutrell observed that current talk of automatic landing of commercial aircraft by radio, radar or electronics is wishful thinking. He believes that visual landings must continue, with more attention is given terminal approach and runway lighting installations from the pilot's viewpoint.

In their talks at SAE's Air Transport sessions, both proposed installations along the lines of those

desired by the Air Transport Association. Cutrell suggested two automatic direction finder beacons, one 3,500 ft. and the other 4½ miles from the end of the runway, and development of a traffic holding pattern to be flown by all arriving pilots. Gill recommended a composite system incorporating advantages of the vertical radio beam runway localizer, curved horizontal radio beam glide path, and radio compass to permit homing on airport compass locator stations. Both stressed need for adequate high intensity approach lights.

► **Dispute**—All of these are on ATA's program, but not all are agreed to by Civil Aeronautics Administration. ATA, for example, wants ADF outer locators, now about 8 miles out, brought to a spot 4½ miles from the airport so approaching pilots can fly a tighter pattern. Approaches now have two 75 meg. vertical beacons and in a few instances localizers and glide paths. But ATA finds approach lighting systems inadequate, and wants ADF homing stations to augment the markers. CAA believes the homing stations are not always necessary, though it recognizes the need for glide path, runway localizers and also favors more and higher in-

tensity approach and runway lights, all of which are part of its program.

Plans are being made to experiment with approach and runway lighting, as well as other landing developments, at Chicago airport in cooperation between ATA, CAA and the city of Chicago.

Monro Lashes Out Against Integration

C. Bedell Monro, president of PCA and vice president of Air Transport Association, struck out last week against proponents of integration of the various forms of transport in a speech in which he described the Association of American Railroads as "that powerful group of skilled lobbyists and political tacticians."

The AAR, he said, has provided the "most determined and insidious opposition" to the federal airport development plan.

► **TAA Scored**—He declared that the Transportation Association of America, "the Charley McCarthy of a powerful and astute railroad industry," is working for the integration of transportation, which Monro called "actually a honey-tongued



**HIGHER PRESSURE
LOWER WEIGHT**

with the new
**ROME C
G-9**

POWER DRIVEN FUEL PUMP

Write for
Performance
Curve and
Engineering Details

With its higher pressure range of from 6 to 35 lbs., its 400 gallon per hour capacity at 2500 rpm. and its low weight of only 2¾ lbs.—this war-tested pump is ideal for civilian planes.

Built with a balanced type relief valve with shaft seals that are dependable through extreme temperature ranges. This pump is now in production.

ROME C PUMP COMPANY
140 ABBE ROAD ELYRIA, OHIO

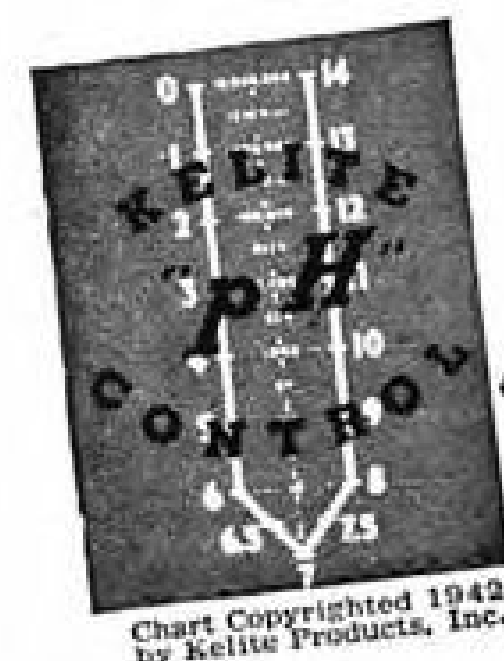
Romec
NON-PULSATING
PUMPS...ACCESSORIES



It's new—amazingly effective and surprisingly inexpensive. Vibrashock* triple-action unit mounts really absorb vibration and cushion shock. Compare Vibrashock with any other unit type mount—and see the marked improvement in performance. We believe Vibrashock will solve your vibration problems.

ROBINSON AVIATION, INC.
Teterboro Air Terminal, Dept. AN-1
Teterboro, New Jersey
3757 WILSHIRE BLVD., LOS ANGELES 5, CALIFORNIA

For Efficient Cleaning



pH CONTROL

has proved to be the key to a new, high standard of efficiency in metal cleaning and processing. It is one of the reasons why Kelite materials are the number one choice of the Aircraft Industry.

A. C. Stripper—removes paint rapidly. Protexol—"wets out" oil, grease. KDL No. 1—simplifies hot tank cleaning. KDL No. 2B—wipes off exhaust stains. Super Kelrex—soaks off carbon, sludge, grease. Process K—removes scale, corrosion.

Kelite Products, Inc.
909 East 60th St., Los Angeles 1, Calif.
"Kelite" Reg. U. S. Pat. Off.



expression for monopoly; the scheme devised by the railroads for the control in parceled out regions of all transportation in large regional bundles—waterways, highways, railroads and airlines."

He called on "every citizen" to fight the integration plan, warning that the nation's independent air carriers "would be crippled, if not entirely destroyed in time, if the rich and powerful surface carrier interests succeeded in their plan to invade first and then take over air transportation."

CAB SCHEDULE

Jan. 14. Hearing in route consolidation case. Postponed from Dec. 17. (Docket 632 et al.)
Jan. 14. Hearing in Colonial Airlines' case for designation of Newark as a co-terminal with New York on AM 72. (Docket 2144.)
Jan. 14. Exchange of rebuttal exhibits in Middle Atlantic case. Postponed from Dec. 25. (Docket 674 et al.)
Jan. 14. Exchange of rebuttal exhibits in Mid-Continent-American merger case. (Docket 2068.)
Jan. 21. Exchange of exhibits in Kansas City-Memphis-Florida case. Postponed from Jan. 4. (Docket 1051 et al.)
Jan. 21. Hearing in Mid-Continent-American merger case. (Docket 2068.)
Jan. 24. Briefs due in Page Airways investigation case. (Docket 1896.)
Jan. 24. Briefs due in Pan American Airways' trans-Atlantic route amendments case. (Docket 2076.)
Jan. 28. Exchange of exhibits in Arizona Airways' case for acquisition of TWA's AM 38. Postponed from Jan. 21. (Docket 2005.)

Jan. 28. Exchange of exhibits in Universal Air Travel Plan case. Postponed from Dec. 3. (Docket 1939.)
Jan. 28. Hearing in Middle Atlantic case in Chamber of Commerce and Board of Trade Building, Philadelphia, Pa. (Docket 674 et al.)
Jan. 31. Comments due on proposed new Part 42, Civil Air Regulations, non-scheduled air carrier certification and operation rules. Extended from Oct. 1.
Feb. 1. Briefs due in Great Lakes Area case. Postponed from Jan. 2. (Docket 535 et al.)
Feb. 4. Exchange of rebuttal exhibits in Arizona Airways' case for acquisition of TWA's AM 38. (Docket 2005.)
Feb. 4. Hearing in Pan American Airways Latin-American and Miami-Leopoldville mail rate cases. (Dockets 1593 and 1909.)
Feb. 5. Exchange of rebuttal exhibits in Kansas City-Memphis-Florida case. Postponed from Jan. 21. (Docket 1051 et al.)
Feb. 11. Hearing in Pan American Airways-Panair do Brasil, S. A. agreement case. (Docket 2032.)
Feb. 14. Hearing in Arizona Airways' case for acquisition of TWA's AM 38. (Docket 2005.)
Feb. 15. Briefs due in Mississippi Valley case. (Docket 548 et al.)
Feb. 18. Exchange of exhibits in Boston-New York-Atlanta-New Orleans case. (Docket 730 et al.)
Feb. 18. Hearing in Kansas City-Memphis-Florida case. Postponed from Feb. 5. (Docket 1051 et al.)
Feb. 18. Exchange of exhibits in Pan American Airways application for domestic routes. (Docket 1803.)
Feb. 18. Hearing in Universal Air Travel Plan case. Postponed from Dec. 17. (Docket 1939.)
Mar. 1. Exchange of rebuttal exhibits in Boston-New York-Atlanta-New Orleans case. (Docket 730 et al.)
Mar. 11. Hearing in All American Aviation's case for acquisition of control of Equipamento All American Aviation, S. A. (Docket 1969.)
Mar. 11. Hearing in Boston-New York-Atlanta-New Orleans case. (Docket 730 et al.)
Mar. 18. Rebuttal exhibits due in Pan American Airways application for domestic routes. (Docket 1803.)
Apr. 1. Hearing on Pan American application for domestic routes. (Docket 1803.)

CAB ACTION

The Civil Aeronautics Board:
● Granted cities of Barnesville, Circleville, Mansfield, and Newark, Ohio, permission to intervene in Great Lakes Area case (Docket 535 et al.).
● Permitted inauguration of non-stop service by Western Air Lines between Salt Lake City, Utah, and Butte, Montana on AM 19; by PCA southbound between Rochester, N. Y., and Washington, D. C., on AM 34, between Norfolk, Va., and Raleigh, N. C., and between Greensboro, N. C., and Knoxville, Tenn., on AM 51.
● Granted Pan American Airways permission to serve Hamilton, Bermuda, with landplane equipment through Kindley Field, and granted Western Air Lines service at El Centro, Calif., on AM 13 through Holtville Auxiliary Airport.
● Dismissed without prejudice, at applicant's request, applications of John C. Van Son (Dockets 958 and 959).
● Dismissed from Middle Atlantic case (Docket 674 et al.), at applicant's request, applications of PCA (Dockets 979, 1289, 1848, 1850, 1851, 1852, and 2081).
● Amended form of Report of Financial and Operating Statistics for Domestic Air Carriers and the Uniform System of Accounts to substitute airport-to-airport for course flown mileages.
● Denied motion of Pan American Airways for consolidation with its trans-Atlantic route amendments case (Docket 2076) of an application by American Overseas Airlines for exemption order to permit service between U. S. and Frankfurt, Germany, and deferred action on PAA's petition to intervene in American Overseas' application (Docket 2165).

SHORTLINES

► British Overseas Airways has opened a reservation and information office in the street floor at 420 Madison Ave., New York City.
► Eastern claims the first air carriage of prize poultry. The line carried 20 Rhode Island Reds and their owner from New Orleans to New York to the annual poultry show.
► National's 5,540,491 passenger miles in December were 33 percent higher

than the same month a year earlier. Revenue passengers increased from 9,498 in December, 1944, to 10,826 last month. Load factors last December: New York to Jacksonville, 95 percent; Jacksonville to St. Petersburg, 93 percent; Jacksonville to Miami, 92 percent; New Orleans to Jacksonville, 89 percent. . . . National expects to place "several" DC-4's of 46-passenger capacity each on its New York to Miami run this month.

► Pan American has added cargo stewards to crews of planes on its Latin American division. They will be responsible for receipt and delivery of all air express shipments and will supervise cargo loading and unloading. There are 10 of them at present. . . . The company will add cargo services throughout Latin America as planes become available. . . . The PAA C-54 that started land plane service to Bermuda early this month cut three hours off flying boat time, making the 1,520-mile round trip from New York in 7 hrs. 32 min. flying time. The 38-passenger DC-4's will be replaced "soon" by 50-passenger Constellations.

► PCA expects to increase its adver-

tising substantially this year. It will be placed through the Lewis Edwin Ryan Agency of Washington.

► Trans-Canada Airlines carried 180,000 passengers in 1945, an increase of 23,116 in the year. Express carried was up 65,000 lbs. to a total of 921,000, but mail dropped 167,000 lbs. to 3,572,000.

► United reports that travel over its system is almost a third higher than it was a year ago. Comparison of last December with December, 1945, showed revenue passenger miles of 51,456,000 against 38,983,432 and revenue plane miles of 3,654,270 against 2,803,366. . . . A luncheon at the Detroit Athletic Club featured ceremonies attendant on United's recent inauguration of service to that city. More than 200 business and industrial leaders attended. W. A. Patterson, UAL president, was principal speaker. Toastmaster Ernest R. Breech, president of Bendix Aviation Corp., was introduced by T. Mel Rinehart, president of the Detroit Board of Commerce. Guests included Gen. William S. Knudsen, Gael Sullivan, second assistant postmaster general, and Mayor Edward Jeffries.

WANTED: Sales Engineers

Specialized Aeronautical Equipment. High pressured men need not apply. We present our cases on the basis of merits only. Must be able to fly. Give full details first letter.

HUGH C. ROBBINS & ASSOCIATES
P. O. BOX 346, TROY, OHIO

OPPORTUNITY

Long established, reliable aircraft service operator needs experienced aircraft sales and radio installation and maintenance personnel immediately. Write giving full particulars to

P-179, AVIATION NEWS
330 WEST 42nd STREET
NEW YORK 18, N. Y.

SALES-ENGINEERING WORK

Engineering representative of large aircraft company interested to relocate in sales-engineering work in aircraft, airline, petroleum or related industry. Age 20; 5 1/2 yrs aircraft power-plant experience; B.S. engineering degree from mid-west college; some pilot experience. Now located on West Coast.

SA-190, AVIATION NEWS
621 So. Hope Street Los Angeles 14, Calif.

ENGINEER — EXECUTIVE

Aircraft design performance calculations from Navy flight test data, hydrodynamics research at NACA, 14 years total engineering.

Last 5 years representing Bureau of Aeronautics in five aircraft plants in administrative capacity requiring broad background in engineering, production, materials and other management problems. Will accept opportunity in either engineering or management.

Present rank, Comdr. Available Feb. 1, 1946.

PW-181, AVIATION NEWS
520 N. Michigan Ave., Chicago 11, Ill.



"Get 3 times the service": FLIGHT OPERATOR

Records show that Flottorp propellers give longer service with fewer repairs and lower maintenance cost. This is because Flottorps are equipped with the stainless steel leading edge which can take a tremendous pounding from stones and gravel without bruising or being thrown off balance. Flottorps are made for 175 different plane models.

FLOTTORP MFG. CO.

Airport Grand Rapids 8, Michigan

SKILLED OPERATORS



Know Aluminum!

Machines provide only the means for good craftsmanship . . . skill, based on long experience in handling aluminum in all its alloys, must guide the operation of these precision instruments.

Over 25 years of aircraft building has trained Mercury craftsmen; and this skill, and "know how" are now available for your products or parts manufacture.



Right on the Nose of the NEW Ercoupe

Again Ercoupe chooses Sensenich as standard equipment . . . because Sensenich—world's largest manufacturer of wood aircraft propellers—knows how to design and build for maximum efficiency. Swing a Sensenich and be sure!

Prompt repair service now available.



SENSENICH BROTHERS
LANCASTER, PA. GLENDALE, CALIF.

Chaos At Miami

If the shocking lack of organization marking the Miami All-American Air Maneuvers serves as a lesson to every other city contemplating an air show, perhaps it was all worth while after all.

Any event of such size requires an unbelievable amount of planning and work. The loyal and willing Miamians appointed only a few days earlier to their various tasks labored commendably. But an experienced leader with organizing ability, in constant control of a swiftly moving and capably appointed staff, simply did not exist.

There was no single show headquarters where top executives could be contacted by their own organizations or the press. Top executives did their own legwork, and could seldom be found. They kept the program in their pockets making changes by the minute until the events actually were started.

Individual committees operated valiantly, but usually inefficiently, on their own.

No one counted registration, no one knew how many lightplanes had arrived, no announcements were ever made to reporters. A friendly attorney was named publicity chairman.

Private flyers who were making financial sacrifices to reach Miami were offered \$10 or \$25 hotel rooms miles away on Miami Beach. Special arrangements with hotels for Air Maneuvers visitors appeared never to have been thought of. Regular rates were in effect generally.

The Transportation Committee functioned well but arrangements at the giant airport put the hundreds of visiting lightplanes far from the stands. Both the parking areas and stands were far from regular transportation. Spectators were away from the planes and were discouraged from walking along the edges of the roped area to admire the variety of ships.

The contrast with the planned and smoothly functioning Oklahoma City annual clinics and Birmingham air shows was pathetically glaring. Miami needs a Steady Acker and a Stanley Draper.

The Customer Is Never Right

AERONCA Aircraft Corp. is making an effort to correct the wide variation in quotations made by operators for repair and overhaul. A

manual has been compiled for its dealers and operators listing suggested flat rates. The operator checks the time needed for any job, multiplies it by the hourly rate charged, adds the cost of materials, and totals the cost of the work before it starts.

While many operators will disagree with the efficacy of such a system, the fact that one of the nation's leading lightplane manufacturers is tackling the problem, rather than deploring it, is worthy of a note of encouragement.

Why so little is being done throughout personal aviation to give more attention to complaints of private plane owners is one of the mysteries of this industry. The attitude that the customer is never right can wreck the revenues the operators receive already. Wiping it out is as important today as more airports and better lightplane designs are to expansion of personal flying tomorrow. Scores of returning veterans setting up their own small bases and fighting for business please take note.

Recognizing a Friend of Aviation

THE *New York Times* and its publisher, Arthur Hays Sulzberger, have been awarded the Frank M. Hawks Memorial Trophy in recognition of their contribution to the development of aviation. The action will be applauded by the aviation world.

Comprehensive, dependable coverage is nothing unusual for the *Times*, but close observers in aviation have noted this distinguished newspaper's unusual attention to aeronautics, both in the amount of space devoted to it during the newsprint shortage when thousands of dollars of advertising was being rejected and in prominence of display of such stories, frequently on the most competitive front page in American journalism.

The *Times'* intelligent optimism on the future of U. S. commercial aviation has been outstanding. To Mr. Sulzberger: The citation does not make fitting reference to *Times* writers Reginald Cleveland, Fred Graham, and John Stuart who have written so many aviation stories and editorials in recent years.

ROBERT H. WOOD



FOR THE Personal Plane Operator...

AN IMPORTANT NEW PRIMARY INSTRUMENT

An air driven Attitude Gyro, built under the same high standards as the well-known Sperry Directional Gyro and Gyro-Horizon, has been developed by Sperry Research and is now available. This instrument can be used on any airplane where vacuum operated instruments are normally required.

The same "Four Freedoms in

Flight" which Sperry's electric Attitude Gyro is giving to pilots of military and transport aircraft—freedom from caging, tumbling, misinterpretation, fatigue—are now at the fingertips of the personal plane operator.

Pattern indication (the same by day or night) gives the pilot a quick, visual picture of his attitude

at all times...continuously, at any flight angle, regardless of visibility or turbulence.

Sperry's Model F-3 Attitude Gyro is of small standard size, light weight (2¼ lbs.) and low initial cost. Its simplicity of construction means reduced maintenance cost.

Write our Aeronautical Department for further information.

SPERRY GYROSCOPE COMPANY, INC. GREAT NECK, N. Y.



Division of the Sperry Corporation

LOS ANGELES • SAN FRANCISCO • SEATTLE • NEW ORLEANS
CLEVELAND • BROOKLYN • HONOLULU

GYROSCOPICS • ELECTRONICS • RADAR • AUTOMATIC COMPUTATION • SERVO-MECHANISMS

"My War Job's Done..

*SO HERE I
COME!"*



NEW Mobilgas AIRCRAFT

***GIVES
FLYING HORSEPOWER***



IT'S HERE for all planes—the same super power that boosted U. S. fighter-bomber performance—in a great new Mobilgas Aircraft!

It's *Flying Horsepower*—a new kind of gasoline performance that gives commercial and private planes faster take-offs, climbs, speeds.

Flying Horsepower climaxes 13 years of Socony-Vacuum research

—is the result of world's greatest catalytic cracking program.

Get NEW Mobilgas Aircraft and you get the greatest flight power you've ever known . . . *Flying Horsepower!*

SOCONY-VACUUM OIL CO., INC.,
26 Broadway, New York 4, N. Y., and
Affiliates: Magnolia Petroleum Co.,
General Petroleum Corp. of California

TUNE IN "INFORMATION PLEASE"—MONDAY EVENINGS, 9:30 E.S.T.—NBC