

**FLYING**  
JANUARY  
1949

## THE TRUE STORY OF

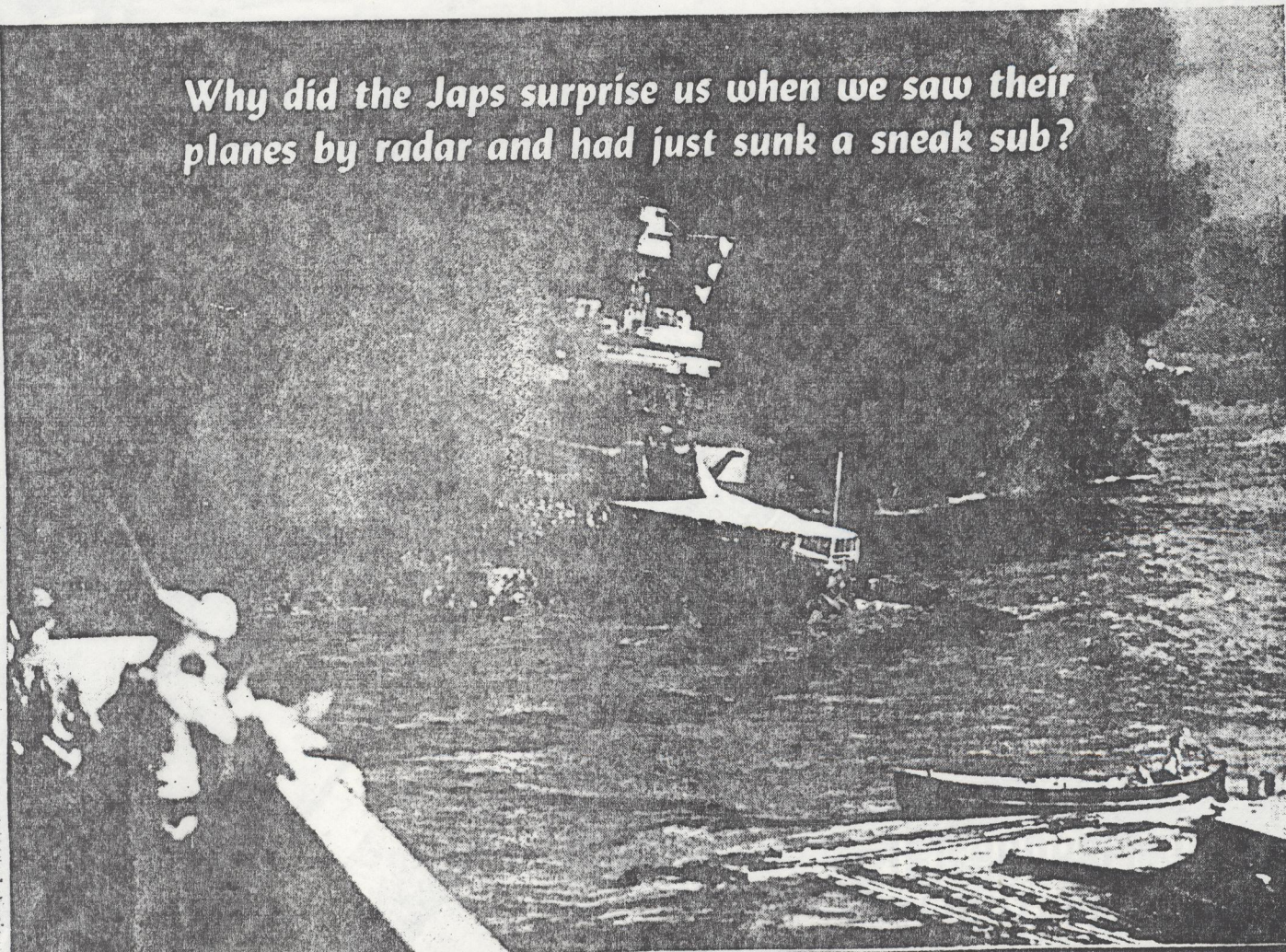
# Pearl Harbor

**O**N NOVEMBER 26, 1941, a Japanese task force sailed from Hitakappu Bay in the Kurils. The force included, in addition to its train, six aircraft carriers, two battleships, two cruisers, nine destroyers, and three submarines. They reached position approximately 200 miles north of Oahu before dawn on December 7 (Hawaiian time).

Plans for the strike had been initiated during the previous summer, completed by early November. In September picked crews—with pilots who averaged better than 800 hours' flying time—from the Japanese First Air Fleet had begun a period of intensive training in horizontal and dive bombing and in the technique of torpedo attack in shallow waters.

En route to the rendezvous above Oahu, with the ships under radio silence, the pilots were briefed on their coming mission. The primary target was the U. S. naval base

**Why did the Japs surprise us when we saw their  
planes by radar and had just sunk a sneak sub?**



Battleship California sits at Pearl Harbor and other ships are in flames following Japanese bombing. Note men swimming over the side.



## U. S. planes grouped against sabotage were easy targets

### What Really Happened At Clark Field?

Our planes in the Philippines had plenty of warning. Yet the Japs destroyed half of them the first day. General MacArthur has been blamed. Who was at fault? Read the answer in next month's issue of FLYING. That story, like this, is condensed from the recently published "The Army Air Forces in World War II", prepared under the editorship of Wesley Frank Craven, New York University, and James Lea Cate, University of Chicago, by the Office of Air Force History. This article is condensed from Chapter 6, by Dr. Richard L. Watson of Duke University. Vol. II of the 7-volume history will appear in May.

of Pearl Harbor, the design to cripple the Pacific Fleet. It was hoped that at least four aircraft carriers and four battleships could be sunk or rendered useless for a long period. Post-war interrogations of enemy personnel indicate a lack of precise information as to the U. S. naval vessels then at Pearl Harbor, but each pilot received charts marking off definite areas of attack.

What were the American air forces the Japanese faced? Their status, compared with other U.S. overseas garrisons, was relatively imposing. A total of 754 officers and 6,706 enlisted men made up the personnel complement of the Hawaiian Air Force, which was concentrated on the island of Oahu. The force was commanded by Maj. Gen. Frederick L. Martin.

Of the 231 military aircraft assigned to the air force on December 7, approximately half could be considered up-to-date models. Twelve B-17D's, 12 A-20's, 12 P-40-C's, and 87 P-40B's comprised the more modern aircraft, while 33 B-18A's, 39 P-36A's, 14 P-26's, and an assortment of observation, training, and attack planes made up the remainder.

Military and Naval commanders in Hawaii had received warning of an impending break in American and Japanese



Attack began at 7:55 a.m. when





Boeing B-17 was one of 12 unarmed Fortresses which arrived from U.S. in midst of battle. One was destroyed, three badly damaged.

relations, and forces in the islands had been placed on an alert. The standard operating procedure of the Hawaiian Department outlined three alerts: the first required defense against acts of sabotage and uprising within the islands; the second called for security against attacks from hostile subsurface, surface, and air forces, in addition to defense against acts of sabotage; and the third provided for occupation of all field positions by all units, in preparation for the maximum defense of Oahu and Army installations on outlying islands in the Territory of Hawaii.

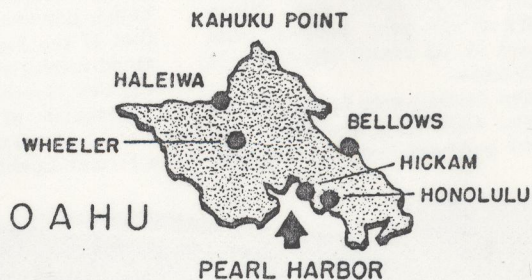
Because a local estimate of the situation indicated that sabotage was more likely than outright attack by hostile forces, the Hawaiian Department ordered Alert No. 1 in operation and notified the War Department of its actions. Aircraft were concentrated in hangars or in open spaces nearby, and extra guards were placed about the aircraft and military installations. Construction was started on protective fencing and floodlighting projects. Of the imminence of hostilities, there was little doubt; but it was generally felt that the most likely area of attack was in the Philippines.

American commanders in the Pacific had received definite warning of an impending break. The War Department on November 27 sent a message regarded as a "final alert" to Army commanding officers in the Philippines, Hawaii, Panama, and the Western Defense Command, which included Alaska, warning them:

Negotiations with Japan appear to be terminated to all practical purposes with only the barest possibilities that the Japanese government might come back and offer to continue. Japanese future action unpredictable but hostile action possible at any moment. If hostilities cannot, repeat cannot, be avoided the United States desires that Japan commit the first overt act. This policy should not, repeat not, be construed as restricting you to a course of action that might jeopardize your defense. Prior to hostile Japanese action you are directed to undertake such reconnaissance and other measures as you deem necessary but these measures should be carried out so as not, repeat not, to alarm civil population or disclose intent. Report measures taken. Should hostilities occur you will carry out the tasks assigned in RAINBOW 5 so far as they pertain to Japan. Limit dissemination of this highly secret information to minimum essential officers.

Meanwhile the Japanese were already en route to their strike against Pearl Harbor. Exactly on their schedule, at 0600 on December 7, orders for the take-off were given. Shortly thereafter the first wave—50 fighters, 50 horizontal bombers, 40 torpedo bombers, and 50 dive bombers roared off the carriers and headed toward Oahu. Forty-five minutes later 50 horizontal bombers, 80 dive bombers, and 40 fighters followed as the second and last wave of attack. Three hundred sixty Japanese planes participated in all.

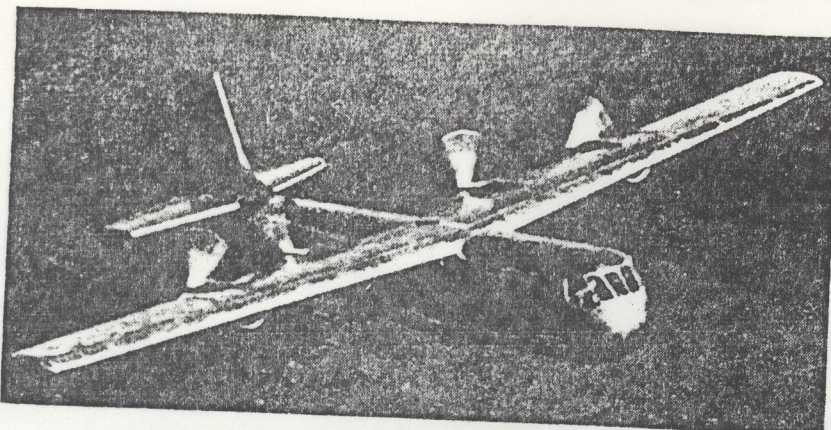
The arrival of the first wave over Oahu was not entirely unheralded. About 0630 a small submarine had been sighted in a restricted zone off Pearl Harbor. By 0650 it had been sunk by the U. S. destroyer *Ward*, whose commander had immediately reported the action to the watch officer at the Naval base and had begun a methodical search of the restricted area.



The six radar detector stations of the Hawaiian Interceptor Command had been in operation since 0400; at 0700 they reached the prescribed limit of their regular morning alert. On this occasion, however, the Opana station at Kahuku Point remained open to provide additional instruction for one of the operators. At 0702 the station plotted a group of airplanes at approximately 130 miles, bearing 0° to 3° east of north. This fact was reported by telephone to the information center about 15 minutes later.

Because of the expected arrival of B-17's from the mainland and the probability of search operations by U. S. Naval aircraft, an Air Corps (Continued on page 56)





## FOUR-ENGINE LIGHTPLANE

**A** LIGHTPLANE "airliner" for executive transportation is undergoing CAA tests near New Orleans. Probably the first four-engined craft of its kind in the world, the all-metal Monsted-Vincent *Star Flight* is designed, "to give businessmen the same dependability and flying range that airlines give to their passengers."

The five-place plane is powered by four Continental 85-h.p. engines and has Sensenich fixed-pitch propellers, but its builders plan to use a higher horsepower lightplane engine (possibly a Lycoming 115-h.p.) and a two-position Sensenich prop in later models.

The new craft grew out of a wartime dream of Col. Farley Vincent, onetime air liaison officer for the Army Ground Forces in Washington. Vincent proposed to build an inexpensive plane that would offer "more dependability than single-engined executive aircraft." Mulling over the idea, he hit upon the four-engine possibility, and in conjunction with Col. Robert M. Monsted a former Air Force officer, organized Monsted-Vincent Aeronautical, Inc. Headquarters of the new aviation company are at 325 North Hennessy in New Orleans.

Present performance figures on the prototype which first flew Oct. 1 are expected to be improved in the later

versions, which will contain the more powerful engines and two-position propeller.

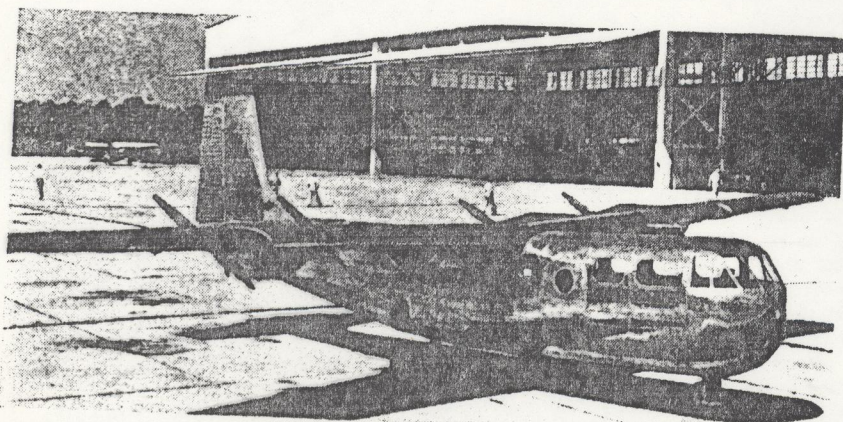
Cruising speed currently is 145 m.p.h., but "over 150 m.p.h." is sought in the future models. With 172-gallon integral tanks (located in the outboard section of the wings), the *Star Flight* will have a range of approximately 1,200 miles (eight hours' flying time), its builders claim.

Gross weight is 5,000 pounds, empty weight 3,200 pounds. It has a 48-foot wingspan and is 34 feet long. The *Star Flight* lands at approximately 60 to 65 m.p.h.

Col. Monsted believes the craft's main appeal will be to businesses or individuals who want transportation that offers "increased safety and dependability over conventional single-engined planes." His company is confident it can produce the four-engined lightplane more economically than the twin-engined planes now on the market.

As the *Star Flight* is not yet certificated, the selling price has not been finally determined. It will be marketed, however, at a price "between that of the highest-priced single-engined executive plane and the twin-engined Beech."

Designer of the unconventional plane is Art Turner of New Orleans, a former Lockheed engineer.



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(Continued from page 17)

officer who was on duty at this time "solely for training and observation" did not consider it necessary to take any action. Meanwhile the Opana station had tracked the planes toward Oahu and had lost them.

Two opportunities for an 11th-hour reprieve had been forfeited.

At 0755 single-engined planes were observed southeast of the Hickam Field hangar line heading for Pearl Harbor. Almost simultaneously the naval base and Hickam Field came under attack.

For approximately 30 minutes units of the Pacific Fleet were subjected to the savage blows of wave after wave of enemy planes. It is impossible to determine precisely the sequence of the enemy's actions; they included eight attacks delivered by some 30 dive bombers, low-altitude attacks by more than 20 torpedo planes sweeping across the harbor in four waves, and level bombing from about 10,000 feet by perhaps 15 aircraft. Then came a quarter-hour of comparative quiet. At 0840 horizontal and dive bombers renewed the attack. This action lasted about an hour. At its end the Navy had suffered a most crushing blow.

The battleship force had been most heavily hit. The *Arizona*, *California*, and *West Virginia* had been sunk, the *Oklahoma* capsized, the *Nevada* severely damaged, and three others damaged. Three cruisers, three destroyers, and a seaplane tender had received damages of varying degrees of severity; a mine layer and a target ship had been sunk. Fortunately no carrier was in port. Naval and naval air installations had been seriously hurt. Of approximately 169 naval aircraft in the Oahu area, 87 were destroyed. Tragically heavy too were losses in Navy and Marine Corps personnel, with 2,086 officers and men killed or fatally wounded and an additional 749 wounded.

Although the primary purpose of the enemy had been to cripple the American fleet, it was at the same time necessary for the Japanese to eliminate the danger of an effective reaction from the Hawaiian Air Force. Accordingly, and simultaneously with the initial attack on the fleet, 28 bombers in three waves escorted by pursuits carried out a 10-minute raid on buildings of the Hawaiian Air Depot and the hangar line at Hickam Field.

After a 15-minute lull, the attack was renewed by five or six high-level bombers which fruitlessly bombed the baseball diamond; six to nine others dropped down to 150 feet for a more damaging attack on the No. 1 Aqua System, the technical buildings immediately behind the hangar lines, the consolidated barracks, and on planes parked almost wing tip to wing tip on the warming-up apron. A third attack at approximately 0900 by from six to nine planes scored hits on technical buildings, dispersed planes, barracks, the parade ground, and the post-exchange.

At Wheeler Field, principal pursuit base, the first bombs fell shortly after



January, 1949

0800. Approximately 25 dive bombers approached the field at an altitude of about 5,000 feet, went into a dive, and released their bombs over the hangar line. Within a few minutes the air seemed full of planes circling in a counterclockwise direction but otherwise maneuvering according to no apparent pattern.

Though this attack lasted for no more than 15 minutes, other planes strafed the field shortly after 0900. Bellows Field, third of the major Air Corps installations, suffered less than did either Hickam or Wheeler. Only one plane out of the enemy's first wave of attack, and that a fighter, directed its attention to this field. But nine more fighters came over soon after 0900 to give the field a thorough strafing for about 15 minutes.

In comparison with the havoc wrought by the Japanese planes, the reaction of defending units was pitiful. The enemy had achieved the crushing advantage of surprise. Moreover, under the alert in effect since November 27, AAF planes were concentrated for protection against sabotage, with an allowance of four hours' notice to make them ready for flight, instead of being dispersed in readiness for a prompt take-off.

In the circumstances, it was virtually impossible to put up anything approaching an effective air defense. In spite of handicaps, four P-40's and two P-36's took off from Wheeler Field 35 minutes after the initial attack, and from 0830 until 0930 Army pursuit planes flew a total of 25 sorties. Perhaps the most successful in-

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terception was performed by six pilots of the 47th Pursuit Squadron based on the small field at Haleiwa, the only usable airfield not subjected to serious enemy attack. Though not at their base when the attack commenced, Lieuts. Harry M. Brown, Robert J. Rogers, Kenneth A. Taylor, John J. Webster, and George S. Welch succeeded in reaching Haleiwa by automobile and, acting without information as to the number and type of enemy planes, carried out a number of sorties in P-40's and P-36's between 0815 and 1000. Welch alone claimed four enemy planes shot down.

Lieut. John L. Dains, another pilot participating in the action, alternately used a P-36 and a P-40 in three sorties, but on the third of these he was shot down over Schofield Barracks, apparently by antiaircraft fire. On learning of the attack upon Wheeler, crews of the 44th Pursuit Squadron at Bellows Field began arming their P-40's and by 0855 three were ready. But just as pilots Hans C. Christiansen, George A. Whiteman, and Samuel W. Bishop prepared to take off, Japanese pursuits swept over the field in a strafing attack. Christiansen was killed while getting into his plane; Whiteman was shot down immediately after his take-off; and the other P-40, severely damaged, crashed into the ocean. In spite of a wound in the leg, Bishop succeeded in swimming ashore.

At about 0850 four P-36's of the 46th Squadron had taken off from Wheeler during a temporary break under orders

to proceed to the vicinity of Bellows Field, near which they attacked a formation of nine Japanese planes. In spite of the fact that the P-36's could not match their opponents in rate of climb, two of the enemy were shot down with the loss of one American plane piloted by Lieut. Gordon H. Sterling, Jr.

Not until 1100 was it possible for Hawaii-based bombers to get off the ground in a search for the enemy's carriers. But the B-17's of the 38th and 88th Reconnaissance Squadrons, which had left Hamilton Field the preceding evening on the first leg of a flight from the United States to the Philippines, arrived over Oahu in the midst of the attack. Unfortunately, the planes had been so heavily loaded with gasoline that ammunition could not be carried, and for the purposes of balance the armor plate in the rear had been shifted forward. As a consequence, the pilots on reaching Hawaii could attempt no more than to escape from enemy fire. Of the first two flights, Maj. Richard H. Carmichael, ranking officer of the 88th Squadron, and Lieut. Harold N. Chaffin brought their planes down on the 1,200-foot runway at Haleiwa; Lieuts. Harry N. Brandon, David G. Rawls, and Robert E. Thacker flew through antiaircraft and enemy machine-gun fire to land at Hickam; and Lieut. Frank P. Bostrom played tag with the enemy almost all the way around the island before landing on a golf course.

The second flight, led by Maj. Truman H. Landon of the 38th Squadron, fortu-

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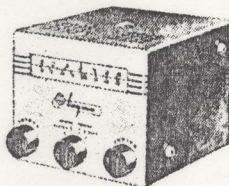
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**WORLD AVIATION ANNUAL, 1948**, published jointly by Aviation Research Institute, 903 16th Street N.W., Washington 6, D.C., and the James Jackson Cabot Professorship of Air Transportation of Norwich University, Northfield, Vt. Editor-in-chief, J. Parker Van Zandt. 540 pages. Price \$17.50.

**JANE'S ALL THE WORLD'S AIRCRAFT, 1948**, published in the United States in 1948 by the MacMillan Company, 60 Fifth Avenue, New York 11. Compiled and edited by Leonard Bridgman. 570 pages. Price \$20.

These two large reference books are essential to any well-equipped aviation library and do not overlap each other in the field of aviation information to any marked degree.

The World Aviation Annual was published for the first time in the latter part of 1948. For researchers and casual hunters after information, it is probably a good thing that it bears the editing stamp of Dr. J. Parker Van Zandt by expressing his special interest in world air transportation and economics.

It supplies detailed information on world and U. S. airlines and air transportation which is available from no other single source. Although it includes historical and service information and plane specification data it is most successful in presenting economic information. The data is organized in uniform sequence. Government organization, service aviation, and history are followed by bilateral agreements, manufacturing, and export-import data. Finally comes data on air carriers, airports, and ground facilities. The information is not designed to help a pilot so much as to provide research materials for students, editors, and desk researchers. Extremely detailed information is provided for American manufacturing companies and air carriers, with less detailed information about foreign companies.

Jane's, the standard book on aircraft for decades, has a different aim than the World Aviation Annual. It devotes some 22 pages to service aviation in 47 countries and 53 pages to civil aviation. But its main purpose is to provide detailed data and specifications on current aircraft and engines. Three hundred twenty-five pages in the book are devoted to that end.

The World Aviation Annual has been called "An American Jane's," but it is not. It is a different kind of book, serving for the most part a different reader demand. Just as Jane's does not begin to present the detail on manufacturing and air transportation, so the World Aviation Annual does not begin to provide the coverage of airplanes and engines that Jane's does—even of U.S. data.

Data in each book is arranged by country, but in Jane's it is divided into four major sections, whereas in the Annual it is all grouped into a single package. An

interesting feature of the Annual is an air travelers' guide for each country, giving best traveling time, monetary units, entry requirements, airline service, principal cities and hotels.

—CURTIS FULLER

## SHORT VIEWS

**WYNDHAM COURSE AND SPEED CHART.** Published by Messrs. Edward Stanford, Ltd., 12-14 Long Acre, London, W.C.2, England. Price \$1, postage free.

This pocket navigator, clearly printed in colors and enclosed in a transparent wallet, supplies at a glance the following data: (1) Number of degrees to lay off for wind direction; (2) ground speed and time required to cover 20 miles; (3) E.T.A. and fuel requirements; (4) a silhouette of course-to-wind angle, thus preventing double correction; and (5) wind direction in case of a forced landing.

**JET PROPULSION IN COMMERCIAL AIR TRANSPORTATION** by Robert E. Hage. Published by Princeton University Press, Princeton, N. J., in 1948. Price \$1.50.

The material in this book represents a series of lectures in aeronautical engineering at Princeton University. It is devoted to the question, "Can jet propulsion, which has so revolutionized military aviation, be applied in civil air transportation?"

The author reviews the types of power plants which had been applied experimentally to military planes.

In his opinion, a medium-range turbo-jet transport carrying 25 to 30 passengers and flying at a cruising speed of 500 to 525 m.p.h. is a likely development for use on the routes of major airlines between major cities.

A jet transport with a design range of approximately 1,000 miles would service all domestic runs from 250 to 2,500 miles. A feeder type airplane like the DC-3, however, would still be necessary for short runs of less than 250 miles and within lightly populated areas.

**NATIONAL AIRCRAFT BLUE BOOK.** Published by National Market Reports, Inc., 900 S. Wabash Ave., Chicago 5, Ill. 1948 Fall Edition, Vol. II, No. 4. Price \$7.50 yearly.

This revised edition of the National Aircraft Blue Book contains average appraisal values on all U. S. aircraft manufactured since the inception of the CAA, including the latest models. It is a guide especially prepared for those engaged in buying, selling, financing and insuring aircraft. Essential identification data, horsepower, seating capacity, and original factory prices are given, together with average appraisal valuations.

(Continued from page 57)

nately arrived during an inactive period in the attack, but one of the B-17's was badly shot up and two of its crew members were seriously injured. Considering everything, the bombers suffered surprisingly little damage. A final accounting showed that of the 14 planes which left Hamilton Field, two had turned back early in the flight. Of the 12 which reached Hawaii, one had been destroyed and three badly damaged.

Through the remainder of the day, P-40's, P-36's, O-47's, A-20's, B-17's, and B-18's continued a fruitless search for the enemy's carriers, flying a total of 48 sorties between 0930 and 1520. The aircraft warning system had been put back into operation shortly after 0800, but could provide no assistance in this effort. Apparently the course of the invaders plotted earlier in the morning was not utilized as a clue to the probable location of the carriers.

It is now known from enemy sources that Japanese flyers of the first attack wave had returned to their carriers by noon, and that within two hours thereafter all but 29 of the planes sent out against Hawaii had found their way back. But as the day advanced the sea had roughened, and approximately 50 planes were smashed in landing, with 20 or more representing a total loss. This was a small price to pay for the damage done to the Americans.

In addition to the losses suffered by the United States Navy, 64 of the 231 aircraft assigned to the Hawaiian Air Force as of December 7, 1941, had been destroyed, and no more than 79 of the remaining planes were reported as usable. At Hickam Field some of the more important administrative and engineering files, the base repair section, and the overhaul and assembly sections of the Engine Repair Branch had been wiped out. Test equipment, about 75 per cent of the equipment of the Aero Repair Branch, and more than half of the depot property stocks were destroyed. AAF casualties, especially at Hickam Field, were heavy, reaching a total of 163 killed, 43 missing, and 336 wounded.

Except for two carriers dispatched for participation in the attack on Wake Island, the enemy fleet returned to the Inland Sea of Japan. Japanese officials interviewed after the war indicated that they had at no time contemplated a landing in Hawaii. The major Japanese drive, as had been anticipated by the associated powers, would be directed against the Netherlands East Indies and the Malay Peninsula, and in its course would absorb the American-held Philippine Islands. That drive would not be impeded by an American fleet based at Pearl Harbor. The enemy's victory had been perfect as few military operations are.

Nothing in the record indicates that the story would have been substantially better had airmen been in full control of their own forces, whatever minor differences that might have meant. Wherever the fault lay, the AAF in Hawaii, and the fleet whose defense was its chief mission, suffered an overwhelming defeat.

END