

runway 150' wide so I may as well put it all to use!" The F-24 was always manageable but you needed to stay focused when on the hard surface to keep out of the weeds.

Shut down is typical for a small radial. Set 800 revs to cool the engine and scavenge the oil and shut off the fuel to let the carb run dry. Service the fuel with 80 octane mixed with "Marvel Mystery Oil", this helps the top end, and keeps the oil tank at three gallons with Grade 100 oil in the summer, 80 in the winter. The Warner runs dry, except for the rocker grease so clean up is easy. It couldn't be easier.

Final Impressions

What a wonderful airplane the F-24 is. Fairchild identified a market (2 place cabin type) and designed a great airplane to serve that market. The F-24s combination of speed, range and handling, all for the 1932 price of \$6700.00 was difficult to match. Even today, maintenance issues aside, I think it beats a modern "Skyhawk" or "Cherokee" hands down. 19123 itself is a wonderful example of a fine airplane and stands out as one of the nicest flying machines I have been privileged to fly. If you should get a chance to fly any version of the F-24 don't pass it up or you will miss a real treat. And don't forget to call me; I would sure like to ride along.



Big Fellow

By

Beirne Lay, Jr. (1)

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The Boeing B-15 bomber recently turned over to the 2nd Bombardment Group at Langley Field, Virginia for service test has been referred to in the papers as the "Army's Mightiest Bomber," the "Sky Battleship" and the

"Super Flying Fortress." It is. In size, defensive fire power, bomb capacity and eventually in speed, it's a tall drink of water. You don't get the idea from a photograph or from watching the big fellow rumble by overhead. You have to ride inside on a few hours' trip to understand what 150 feet of wingspread and 34 gross tons of weight involve. I recently had the opportunity to make such a trip.



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A view from the cockpit of a Cyclone-powered Boeing B-17 as it passes over the last ridge of the Siskiyou Mountains from Oregon into northern California.

The B-15 was sitting on the grass in front of the 2nd Bombardment Group Headquarters with a B-17 and a two-engine B-18 lined up beside it. The B-17 looked about the size of a Beechcraft by comparison and the B-19 showed up like the tail section of a cub. They

park the B-15 on the grass for the simple reason that there is no hangar on the field, or in the entire Air Corps, big enough for it. Even if there were, you feel as you walk up to the ship that you might as well put a barracks in the hangar overnight, for the B-15 is a flying barracks. Its crew is quartered on board for sleeping and messing when away from the home station and the metal skin is pretty much weather proof.

Mechanics are removing the tarpaulin engine covers as I step up the ladder and inside the rear cabin. Somewhere forward comes the whirring sound of an electric starter energizer – an unfamiliar sound with men still removing engine covers. I walk forward through the sleeping compartment with its two lower and two upper bunks, through the galley, the great gloomy bomb-bay and into the pilot's compartment. The whirring noise is under the floor boards. I open a door under the pilot's instrument board and step down into the nose. Behind me is a miniature ship's engine room, with two 30-horsepower, four-cylinder, opposed engines and a neat array of generators and electrical equipment. A mechanic is turning over one of these engines with an energizer. On the next attempt it catches.

I go back up to the pilot's compartment, in the rear of which the 1st Aerial Engineer is seated by an instrument board about four feet square. He is watching the panel labeled "Auxiliary Power Plant." There are sixteen instruments on this panel alone. As soon as the oil pressure and the temperature are up, the engineer revs up his two motors to 4000 revolutions per minute, their normal speed. One hundred and twenty volts AC are now being generated in the B-15's electrical power system – enough power to fly a light plane – but the four 1000-horsepower Wasp double-row engines out in the wings are still cold and silent. The far-away hum reminds you of the mysterious sounds that come from the innards of a zeppelin or ocean-going vessel.

Lt. Col. Robert Olds, commander-pilot, Major Edwin R. McReynolds, co-pilot, and other officers and members of the crew come aboard. Colonel Olds will fly the ship to Miami and back on a test hop. I count eleven of us standing without crowding in the pilot's compartment while the 1st Aerial Engineer and 2nd Aerial Engineer start up the main power plants, one sitting in the pilot's seat working the big throttle quadrant and the other in the rear of his instrument board turning on switches and twisting valves by the dozen. Each wears a throat microphone. As the Wasps start up you hear "Number 1 oil pressure coming up okay," "Number 2 oil pressure coming up okay," through the loudspeakers in all parts of the ship. Soon all engines are running, but you scarcely hear them except when they are pushed up to full throttle, so well is the ship sound-proofed. We are okay to go.

Colonel Olds takes his seat and runs through the check list in a few seconds. There are not as many items to check as in the B-17 Flying Fortresses, for the pilots have nothing on their instrument board but flight instruments, manifold pressure gauges and tachometers. All the engine instruments that clutter up the board of a Flying Fortress are back on the Engineer's board and have already received the once-over from the Engineer. They will be his sole responsibility for the duration of the flight. Paradoxically enough, the GHQ Air Force's largest airplane is the easiest for the pilot to fly, disregarding the responsibility involved. A pursuit plane keeps the pilot much busier.

"Stand by to taxi," blares the loudspeaker. We move ahead. Judging by the nearness of our wing tips to other parked ships as we roll rapidly down the ramp, Colonel Olds has acquired a good feel of the size of the ship since he took delivery on it from Wright Field three days before.

I make my way to the top gunner's turret, as we swing around at the end of the runway. Up there it's like being in a crow's nest and you have a look-out in all directions. The tremendous wings dazzle with sunlight and the vertical fin stands up behind me like the prow of a destroyer.

The props blur, and, with an acceleration that makes you grab for a hand-hold, the B-15 gathers speed. The ponderous tail comes up and the great broad wings wedge us into the air.

When the ship gets its permanent installation of 1500-horsepower engines, its performance should be superior to the B-17 from a relative standpoint. And that's something. At present, its cruising and top speeds are about twenty miles per hour slower – this with nearly twice the weight to haul.

The ship squares away in a 110-mile, 400-foot-per-minute climb up the inclined plane leading to 8000 feet as the huge double-doughnut wheels swing back up into their nacelles and the four props take a deeper bite of the air. I climb down from the glass conning tower and start out on a Cook's tour of the big fellow. First I crawl on hands and knees through the tunnel that leads far out into the wing. The noise is deafening as I pass the metal door behind the inboard engine, fades as I crawl further until, about 25 feet out from the cabin, the roar of the outboard engine pounds my ears. The passageway is hot and pungent with the smell of oil, gasoline and hot metal. I open the door to the rear of the nacelle and a blistering wave of heat strikes my face. I creep in and

see the source of the heat – two exhaust pipes passing along the ceiling on their way to the double outlet on top of the wing. I am in a room large enough for a five-handed poker game and a kibitzer. Forming the front wall, the rear section of the engine is easily accessible for repairs in flight. I look over things until the heat is too much for me, then crawl back out of the tunnel into the cabin, face dripping.

The aerial engineer grins at me and tells me the heat in the nacelle isn't so bad after you've left the door open a few minutes and that at higher altitudes it's quite comfortable. A few minutes later he notes a falling pressure from the fuel pump of the right outboard engine, crawls out and repairs the leaking pump. If it had been necessary, he could have cut off the engine entirely and worked on it without interrupting the flight. This was done more than once while the B-15 was at Wright Field.

A detailed description of the bomb-bay is not in order, but it can be said in passing that it is just twice the size of the B-17s' bomb-bay – a regular billiard room. The galley, the next compartment to the rear of the bomb-bay, is equipped to turn out the regular Army ration for the enlisted members of the crew. An ice box with a dry ice capacity for two days keeps fruits and vegetables fresh to supplement the canned goods and other foodstuffs that stock the larder. There is a double hot-plate electric stove for frying eggs and bacon, an electric percolator,



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The giant Boeing B-15, powered by four Twin Wasps, flying in the vicinity of Seattle on one of its test hops.

a 12-gallon drinking water tank and a small kitchen sink. Across the aisle, by a porthole that looks out over the promenade-deck-like wing, is a receding-back easy chair and a large desk. I plump my portable typewriter on the latter, for I have a couple of news releases to tap out before we reach Miami.

The rearmost section of the fuselage is taken up with machine gun blisters, a camera pit, barrel-chute racks, oxygen tanks and a lavatory. Far back in the tail you can see two tremendous blocks of metal on tubular arms, one to balance the rudder, the other to balance the flippers. So well balanced are all the controls of the B-15 that no mechanical actuation of them has been incorporated.

I have spent a good deal of time roaming about the ship by now, so I return to my office and warm up the typewriter. After the first couple of lines I forget I'm in an airplane and am able to concentrate better than if I were on the ground, for there is no telephone to interrupt me – only an occasional order through the loudspeaker to some member of the crew. The ship is quiet and much steadier than a Pullman. She rides steady as a rock. Cumulus clouds are wisping past the porthole when I look out, but the currents forming them fail to jar the ship. I have not felt a bump since we took off.

I finish the news releases and doze in my chair until a welcome report issues from the loudspeaker: "Lunch will be served in the galley in five minutes." Members of the crew wander into the galley to find the "chef," professionally topped off with white cap, bending over his coffee percolator and preparing sandwiches. He hands us mugs of hot water, drops in a spoonful of instant coffee powder, passes out the grub and we set to with the healthy appetite born of our mountain climate. There's something about 8000 feet of altitude that makes coffee a grateful elixir.

The members of the crew return to their stations refreshed and before long the pressure in my eardrums tells me we are going down. I walk forward and glance over the navigator's shoulder. We will be in Miami in ten minutes. I resume my perch in the "conning tower" and watch our great slab of metal ease down to the runway at Municipal Airport. You can hear the tires screech and smell burning rubber as we roll on. They'll have to find some way to get those big wheels turning before they touch the runway if they don't want to lose a mechanic's pay in rubber on these large ships every time they land.

As I climb out of the B-15 with the rest, I can scarcely believe that we have been in the air five hours. No fatigue. No sense of having traveled anywhere. I am thinking not so much of the military significance of the B-15, a subject which others are far better qualified to discuss, but of what four-engine transportation is going to mean in airline patronage. And it's going to mean plenty. There's no comparison between the comfort of a ship of that size and the two-engine transports in use today. Nor can you compare them with the luxury of a Pullman because they give a smoother, more restful ride than you ever got in a Pullman. The four-engine transport is going to revolutionize the traveling habits of John Q. Public, or I'm a Chinaman.

And I'm Scotch-Irish.

(1) SPORTSMAN PILOT PERSONALITIES

Beirne Lay, Jr. has been on active duty at Langley Field since January 15, 1937. He reported there following several months spent preparing his well-received book entitled "I Wanted Wints", which appeared last year. Besides his other duties at Langley, he has been serving in the public relations department, recent special assignments including the Air Corps maneuvers in the northeastern section of the country last spring, with temporary headquarters at Mitchell Field, and the National Air Races at Cleveland.