



FLIGHT-WATCH



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**THE AUBURN
FLY-IN AND
NEAL
MELTON'S
P-47
THUNDER-
BOLT**

I.

Pre-flight

Our first gig for the 2005 airshow season would be

Auburn, Alabama. The Auburn Airport (“AOU”) is located along Interstate I-85 about sixty or seventy miles southwest of our home base at Falcon Field. The wind was a consideration the morning of our planned departure. It was 240 degrees at 12 knots, gusting to 18. The forecast was for the wind to intensify as the day progressed. Keith and I reasoned that even if the wind got worse throughout the day, we could land at Tara Field where the runway orientation was 240 degrees, or roughly directly into the wind.

We took off at about 9:00 a.m. in moderate turbulence. The Kate was bucking like a bronco through about 3,000 feet when the air finally smoothed out. Our groundspeed was anemic as we flew directly into the southwest headwinds. We flew over LaGrange toward Auburn, which was north of Columbus, Georgia.

One of the first Warbirds to arrive, the Kate received its share of attention as we taxied in. As Keith cut the engine, we could hear Leonard Skynnard blaring over the loud speakers as people milled about on the ramp. We had been invited to this fly-in by J. B. Stokely, one of the stalwarts of the Dixie Wing of the Commemorative Air Force (“CAF”) who also flies the P-51 Mustang. Eventually, our Kate was followed by the Dixie Wing’s C-45 twin engine Beechcraft. As a gaggle of home-built RV-8 airplanes flew over the airport, we saw high overhead the profile of a silver P-40 Thunderbolt. The Thunderbolt came spiraling down over the airport losing



altitude, until it finally lowered its landing gear, making an uneventful landing. The crowd was really excited to see such a powerful fighter plane as it taxied to the ramp.

II.

**Neal Melton and His P-47
Thunderbolt**

Keith and I walked down to meet the pilot of the P-47 Thunderbolt. He was a

quiet, unassuming gentleman who spoke little of himself but spoke a great deal about his airplane. His name was Neal Melton. Neal had owned a chain of motion picture theaters in the Southeast. He sold his motion picture theaters to pursue his passion, World War Two aviation. He owns and operates at least two P-47 Thunderbolts, along with other aircraft such as an F-86 Sabre. Neal’s P-47 named “Hun Hunter XVI” was a beautiful specimen of an aircraft. It had a complete set of military markings, decals, and placards. The aluminum was not the mirror-gloss polish we see on exposed aluminum skins of many airplanes. Rather, it was a very roughly polished finished like one would see on aircraft during the Second World War. The P-47 was a monstrous airplane with wide-tracking landing gear and a 2,000 horsepower engine in the nose.

Having read about P-47 Thunderbolts since I was a





kid, I was more than a little interested to become acquainted with some of the particulars of the airplane. Neal invited Keith and I to climb aboard and gave us tour of the airplane.

The first thing I saw was the turbo super-charger in the belly of the aircraft. If you laid on the ground and looked up at the bottom of the fuselage toward the tail, you would see the turbo super-charger through a duct in the bottom of the fuselage. Neal explained that redline on the turbo super-charger was 22,000 rpm. The turbo super-charger weighs about 200 pounds and is larger than the turbo super-charger found on the B-17 Flying Fortress or the P-38 Lockheed Lightning. The waste gates that power the turbo super-charger are on either side of the fuselage just aft of the cowling on the nose of the aircraft. He also showed us the ducted tubing that provided pressurized air to the intercooler that cooled the air after it was turbo super-charged. Turbo super-charging heats the air, and heated air like that would not be desirable to induct into the carburetor. After it is turbo super-charged and pressurized, then the air is cooled through an intercooler. Then the air is ducted into the carburetor of the Pratt & Whitney R2800, 2,000-horsepower engine.

Climbing up to the cockpit, Neal showed us the turbo super-charger's control lever and other cockpit amenities. The turbo super-charger was controlled either independently or in concert with the throttle. The lever for the turbo super-charger had a black knob with a capital "B" on it, indicating "boost." The boost lever could be operated independently of the throttle. Or, it could be advanced to the point that a locking mechanism would allow the throttle and boost lever to be advanced or retarded simultaneously. I believe Neal indicated that without water injection, takeoff power was 52 inches at 3,000 rpm,

and 65 inches with water injection. When I asked Neal about fuel capacity, he said the aircraft as it was configured was about a four-hour airplane. It had a large fuel tank in the fuselage ahead of the cockpit. It also had fuel tanks in the fuselage below the cockpit. It had no fuel tanks in the wings of the airplane. Neal said the fuel consumption on the aircraft in cruise is about 90 gallons per hour, but on takeoff it was about 200 gallons per hour.

One thing the P-47 had that I was not aware of was a small set of dive flaps. The dive flaps would allow the pilot to execute a steep dive or possibly a split-s and hopefully keep the aircraft out of compressibility. Neal explained that no split-s maneuvers were allowed below 15,000 feet. No turns were recommended below 140 miles per hour. The pilot does not slow the airplane down to 110 miles an hour until it is on final approach.

The bubble canopy is electrically operated, unlike the P-51 Mustang's canopy that uses a hand crank. There were levers on the rudder pedals that allow the pilot to stow the rudder pedals and extend his legs for long flights. The trim controls were by the left elbow of the pilot behind the power quadrant. The P-47 could take off with 2,000 pounds of bombs from a 3,000-foot runway. There was no heat in the cockpit, since the greenhouse effect would keep the pilot warm, or so Neal explained.

We climbed aboard the airplane by climbing onto the left main wheel, then up the landing gear, and onto the wing. The cockpit of the P-47 appeared to be quite roomy. There was an emergency hydraulic hand pump on the left side of the pilot's seat, just like in the SNJ/AT-6 series of aircraft. The flight controls and flight instruments appeared to be of a conventional layout. Neal had cleverly positioned a





set of radios in the far right quadrant of the cockpit, including his transponder. The interior of his P-47 looked very authentic for a World War Two fighter plane.

While the P-47 was operated from runways as short as 3,000 feet, Neal explained that typically, he likes to have at least a 4,000-foot runway on which to land the P-47. While a P-47 could take off with 2,000 pounds of bombs from a 3,000-foot runway, this was accomplished with water injection and higher power settings than are not employed today.

The turbo super-charger and intercooler systems were of particular interest to me. It was interesting to learn that those systems were still functioning in his aircraft. If you looked into the fuselage and saw the intercooler, it looked like a large radiator.

Neal was very pleasant in dealing with all the members of the crowd. When I asked him about himself personally, he said, "It is all about the airplane, not me." Neal is the founder of the Tennessee Museum of Aviation, which features a display of World War Two aircraft at the Gatlinburg-Pigeon Forge airport in Sevierville, Tennessee. For further information, visit the website of the museum at www.tnairmuseum.com.



DEDICATED TO ALL WHO FLEW BEHIND ROUND ENGINES

We gotta get rid of those turbines, they're ruining aviation and our hearing...

A turbine is too simple minded, it has no mystery. The air travels through it in a straight line and doesn't pick up any of the pungent fragrance of engine oil or pilot sweat.

Anybody can start a turbine. You just need to move a switch from "OFF" to "START" and then remember to move it back to "ON" after a while. My PC is harder to start.

Cranking a round engine requires skill, finesse and style. You have to seduce it into starting. It's like waking up a horny mistress. On some planes, the pilots aren't even allowed to do it...

Turbines start by whining for a while, then give a lady-like poof and start whining a little louder.

Round engines give a satisfying rattle-rattle, click-click, BANG, more rattles, another BANG, a big macho FART or two, more clicks, a lot more smoke and finally a serious low pitched roar. We like that. It's a GUY thing...

When you start a round engine, your mind is engaged and you can concentrate on the flight ahead. Starting a turbine is like flicking on a ceiling fan: Useful, but, hardly exciting.

When you have started his round engine successfully your crew chief looks up at you like he'd let you kiss his girl too!

Turbines don't break or catch fire often enough, leading to aircrew boredom, complacency and inattention.

A round engine at speed looks and sounds like it's

going to blow any minute.
This helps concentrate the mind!

Turbines don't have enough control levers or gauges to keep a pilot's attention. There's nothing to fiddle with during long flights.

Turbines smell like a Boy Scout camp full of Coleman Lamps. Round engines smell like God intended machines to smell.

Courtesy of Hugh Oldham.



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