The WFC Flyer

MAY 2010

Important Dates

General Meeting
May 13, 2010
7:00 PM
Clubhouse

Board Meeting
June 3, 2010
7:00 PM
Clubhouse

Club Officers

President
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Bob Cournoyer and 37Romeo

From the President by Joe Ebert

The Future is Now

We are beginning the process of updating our airport's Master Plan, which is a blueprint for planned growth and development of the Williamson-Sodus Airport. The current Master Plan has served us well and was the basis for the runway extension, land acquisition, tarmac and building and hangar development.

Economic development will be one of the of the overall Master Plan goals. To this end the FAA has asked us to create a Technical Advisory Committee that includes local community members who can provide advice and guidance on ways we can best leverage our current assets to benefit the airport's economy as well as that of the town and county.

The Projects Committee and I will keep you informed of the key elements of our Master Plan update as we make progress.

Replacement for N3442R

We have begun looking for a replacement aircraft for 42R, with a goal of finding an aircraft that can be used as a long XC platform and IFR trainer. Until we acquire an aircraft, the use of our remaining aircraft will likely go up and there may be scheduling conflicts. If you need an aircraft and it's already reserved, make a reservation for that aircraft anyway. Our AircraftClubs.com reservation system allows for secondary reservations to be made so that if a pilot cancels the primary reservation, anyone who has made a secondary reservation will be notified immediately.

The club members are pretty good about this, but if you're not going to use an aircraft that you've reserved, please cancel the reservation.

Breakfast Time!

Of course, we all know that this weekend brings our fly-in breakfast. Make sure you've contacted your crew leader about your work assignment. If you are an Active Member and haven't been assigned a duty, contact Bill Bach through our AircraftClubs.com's "My Club" link.

It's important for the success of this event that everyone show up, sign in and report for duty! I look forward to seeing everyone on Sunday May 16th. Don't forget that there's plenty of work to do setting up the grills on Wednesday, May 12th and setting up everything else on Saturday morning, May 15th. Show up and lend a hand!

Flying the B1B Simulator *by Jesse Zeck*

I am grateful to Captain John Riker for this awesome opportunity to fly the B-1B simulator at Ellsworth Air Force Base in Rapid City, SD - April, 2010. John, who heads up the B-1B Simulator Program, assigned an instructor to me whose nick -named is "Q". "Q" was an excellent instructor whose just happened to have 3200 hrs of B-1B aircraft time. Before the simulator was activated, approximately 20 minutes time was dedicated to orientation of the instrumentation, characteristics of the B-1B and scenarios that we would be flying. The simulator has full graphics and full motion – although the motion was turned off.

Some information about the B-1B. The B-1B is powered by four turbofans each rated at approximately 15,000 thrust and approximately 30,000 lb thrust with afterburner. Empty, the B-1B weighs 192,000 lb and has a maximum take-off weight of 477,000 lb – (more than a Boeing 767). Also, the B-1B can carry more payload than a B52. It also has a stick instead of a yoke for flight controls and flies like a fighter.

The simulation started at the entrance apron to the runway. Nose steering was turned on and off with a switch on the flight panel. Taxing and take off run was easy to control using a reference point on the nose of the aircraft and rudder pedal steering. The simulator aircraft was set at gross weight of about 387,000 lbs – the B-1B process does not use the V_1 / V_2 speed structure that is commonly use for civil aircraft. Only one speed is used. "Q" read the rotate speed for the day - 165K - off the chart for the density altitude and weight. I rolled onto the runway, lined up, brought the engines up slowly and continued into afterburner.

After you are off the runway, you do not use the rudders. Auto yaw damper control (rudder) is mandatory for stability. The Flight Director computer on the B-1B has the traditional pitch / bank "bars" that the typical civil aircraft Flight Director computer has. It also has some additional features. One feature is an additional set of "climb / descent rate" bars which are controlled by the stick position. For instance, setting this bar at the level fight position with the stick - keeping the stick stationary in pitch, the B-1B will remain at the same altitude relative to the earth regardless of roll or yaw. This function worked well at 540 knots and would make rolls easy.

The B-1B was designed as a lifting body. It appeared that at about 540 knots, the wing lift (normal flight) and the lift provided by the aircraft's side body in 90 degree bank (knife edge flight) are equal. As a result, the B-1B flies the "same" whether the wings are horizontal or are vertical. This also would make rolls easy.

"Q"s direction to me as we started into the maneuvers – We did some hand flying orientation maneuvers at 20,000 ft. "You will have to learn Military flying." Next was – "The minimum bank is 60 degrees"…. The limit is not "bank angle" but is "G" load (30 degree and 45 degree banks were not in "Q's" vocabulary). "Q" asked me to roll into a 2.7 G turn which was easy (using the G indicator, and the "climb/ descent rate bars"). The only thing that I noticed was that the aircraft wanted to continue to roll. This was at 540K.

John grew up on our street – Orchard Terrace - Sodus. He flew right seat on one of my freight runs to New York City when in college ROTC – gathering insight on what he would like to do. His parents, Paul and MaryAnn, still live here.

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We did a tanker scenario, a terrain following scenario and landing scenario. The terrain following provided terrain hash marks and flight path trajectory profiles. It took me about 10 minutes to find the correct reference points on the nose and stick feel to hand fly aircraft. I was able to fly hills in the category of Greens Hill or the hills around Dansville at 330K at 200 feet AGL. Cases such as night or large hills/ mountains, terrain following is not hand flown but is flown in the automatic mode for safety reasons.

For the landing sequence, - the B-1B is flown to runway contact – no flare - the aircraft weight was changed to 252,000 lbs. The approach speed was 133K for this weight. I was able to keep the AS between 133 to 136K and the angle of Angle of Attack indicator inbounds.

Again, I very thankful to John and "Q" for this awesome experience.