Kids, don’t try this at home...
Something to do in Seattle

During a recent business trip to Seattle I had some down time and was able to visit two aviation points of interest – The Museum of Flight in Seattle and the Boeing Factory Tour in Everett.

Boeing’s Everett facility, which is about 25 miles North of Seattle city central, is home to manufacturing of their wide-body jets – the 747, 767, 777 and the new 787 Dreamliner. The Boeing operations occupy the North side of Paine Field, a county-operated municipal airport with a single 10,000 ft. runway. At this site, they have a visitor center called Future of Flight, a number of subassembly buildings, the main assembly hanger (which is the largest enclosed building in the world per the Guinness Book of World Records), three aircraft painting hangers, a sizable tarmac and a large presentation canopy to park planes under for customer delivery.

The visitor center has several exhibits that relate to the history of wide-body passenger aircraft and the manufacturing of them. One could easily occupy 90 minutes to two hours exploring these exhibits. This facility also serves as the starting point for the plant tour. This building sits on the opposite side of the airfield from the manufacturing side of the operations and is separated by security fencing. And these guys take security seriously (more on that below).

The plant tour starts with a 6 minute movie on some Boeing history. Then, it’s on the bus for the trek to the other side of the compound to the assembly hangar. Before starting the tour, we were give specific instructions – leave your cameras and cell phones in a locker in the lobby or back in your vehicles. If you’re caught with either on the tour, they’ll confiscate it, no questions asked. The security folks are “packing heat”, so I had no plans to argue with them.

Once the bus reached the operations side of the field, the first stop was the 747 assembly bays of the hangar. A few interesting points about this assembly building. The building is 16 stories tall, the length is 1/3 mile long, and each bay is 160 yards wide. The building has six total bays. So, the total width is a little more than ½ mile. Between each bay, there is underground tunnel that runs the full 1/3 mile length. The facilities for the building run through the tunnels, so each tunnel has water, waste, electrical and compressed air piping in addition to thousands of miles of network and fiber-optic cable raceways. This was done so these things could be serviced without interrupting aircraft production above ground. Interestingly, when first built, Boeing engineers worked within these tunnels as they provided what Boeing thought was good shelter and security during the “cold war” era.

Once we got off the bus, we entered the 747 building, walked about ½ of the way down the tunnel and took a freight elevator to an observation deck which is about ten stories above the assembly floor. Once you’re overlooking the plant, it’s difficult to describe everything you’re taking in with words. It’s a city under a roof. On one side, there’s a bank of office space that occupies the 16 stories with floor to ceiling windows that permits overlook to the assembly plant. They had four 747’s in various stages of assembly (it utilizes two bays). The complexity sheer volume of equipment used in assembly is indescribable. Basically, they build the front 1/3 of the plane in one jig, the rear 1/3 in a second jig and the center section with wings in a third jig. As the process progresses, the nose and tail are attached to the center section. Once this is complete, the final station covers assembly of the passenger cabin/cargo hold, avionics/cockpit, final wiring/plumbing connections of electrical/hydraulics and the landing gear & engines. This process is completed over eight assembly stations.

From there, it goes across the tarmac to one of the paint hangars for finishing to the customer specifications. Total time for manufacture is 2.5 months.
The Flypaper

The tour moved onto bays five and six of the assembly building where the 777 and 787 are made. In contrast to the 747, the assembly process for the 777 and 787 is far more advanced. As a result of these advances, each jet uses only one assembly bay and goes through four stations. Amazingly, a 777 can be built in 3 weeks and a 787 can be built in 10 days. Once full production is started on the 787, the assembly time will be reduced to three days per plane!

For the 787, there was a section of the assembly area that was literally a sea of thousands of workstation cubicles. In an effort get this project back on track, they moved all of the manufacturing and design engineers directly to the assembly floor and set them up right next to the planes. As issues arise, aircraft assembly staff can call the engineering staff directly to the point of the problem to address the issue. They hope this improves efficiency and solves problems faster.

I was surprised to find that they've already build five 787's with another four on the assembly line. Two of the five have already been painted for the first customer – All Nipon Airlines (ANA). The composite airliner will be 20% more fuel efficient then the 777, and cheaper as well. Costs for each plane: 747 - $224 million, 777 - $197 million, 787 - $187 million.

The main assembly building. You get an idea of its size if you look at the cars parked in front of the blue hangar doors.

The assembly building with the paint hangars across the tarmac.
A FedEx 777, fresh out of the center paint hangar.

787s parked across from each other. One is already painted in the customer’s scheme (ANA). All that's left is to prove is that they can fly!

The Future of Flight Exhibit Area

A section of 787 fuselage. The only metal is the rivets in the structural rings. The rest is all carbon fiber composite.

Next month, I’ll cover my visit to the Museum of Flight.

Ciao for now,
Tom

Link to Archived Newsletters - www.foxvalleyaero.com/newsletters.htm
**President’s Message**  
Dominic Saverino – dominic@teamsaverino.com

Dom didn’t have a report for this month.

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**Vice President’s Message**  
Dennis McFarlane – highpd119@aol.com

Summer is Already Coming to an End!

Can you believe it? I swear it was only yesterday that I was dusting off the transmitters and airframes for what I hoped to be a full season of flying. What can I say? Although I’ve attended a lot of area events and had my share of flights, I’ve not been a regular at Fox Valley Aero Club this season. In fact, the first Saturday I’ve not been committed elsewhere was the 15th of August. It was breezy and I just wanted a day off so to say. I drove out to the flying site and had a nice visit with a few of our members, but didn’t even feel like bringing an airplane to the field.

Most of the club members are aware that I’ve had an opportunity to take on a new, and I must say totally opposite direction from law enforcement, career. It’s a lot of fun but requires a tremendous of time on my part. I’m sitting at my desk behind a computer screen on the average 12 hours each day. As aforementioned, on Saturday’s I’ve been representing Al’s Hobby Shop at various club events. Sunday’s have been spent taking photographs of review material as Cindy operates the products for me while I snap the pictures. As an example, the weekend of our Festival of Flight I really wanted to be attending a war-birds event at another club’s flying field. I should have been attending a nitro car race sponsored by Byron Fuel, a major advertiser in my magazine. I had committed to Paul and fulfilled my responsibility by helping at Festival of Flight. It is not possible for a person to be multiple places at one time. I no longer feel I can do justice to Fox Valley Aero Club as an officer. This club is a premier club and requires officers that can devote the necessary time. I am letting everyone know early that it is time to begin thinking in terms of stepping up to the plate and filling the position of club vice president.

Windy City Jets is now behind us. Pilot participation was lighter than hoped for, but the weather was near ideal. Partly cloudy skies with temperatures in the mid seventies make for ideal flying weather. Dave and Eric kept airplanes flying the whole time, which is good as it is what the paying public comes to see. Although I don’t have the numbers, treasury is Paul’s area of expertise; it appears the event was a success. My nods to Dave Murray and Eric Karl for a job well done.

That’s about it for this month.
Dennis
Minutes of the August 13, 2009 General Meeting

V.P. Dennis McFarlane called the meeting to order at 7:30 P.M.

Our biggest event of the year so far is upon us. Please help the key members of the event in the setup and clean up. If you see someone working on the field for the event help them if possible. The funnel cake guy is coming to our event! Now that’s a big deal.

Dennis McFarlane just got the editor job for a hobby merchandiser publication. Congratulations Dennis.

Committee Reports

Secretary – Thomas Spriet: Dennis requested a motion to accept the minutes as published in the Flypaper. A motion to accept the minutes was made, seconded and the minutes were approved.

Treasurer/Membership Chairman – Paul Jacobs: Presenting the Treasures report, Paul reported a balance of approximately $25,000 in the club treasury. A motion to accept the report as presented made, seconded and the report was approved. For the remainder of 2009, a member would pay ½ dues rate.

Field Chairman – Greg Bohler: The field is in great shape for the upcoming jet event. Greg will need help at about 5:00 Sunday to put the field back to normal by removing the ropes, banners, signs and a general clean up if required.

Safety Chairman – Karl Griesbaum: Nothing new to report.

Government Relations/Fun Fly Chairman – John Turner: This Saturday at 4:00 P.M., we will be having the 3s’s for a fun fly. Next month we will travel to Chicagoland field on September 27th. October we will be back here hosting the Propmasters with November having our turkey fry! Come one come all.

Flypaper Editor – Tom Siwek: Please forward content as it has been a little slow in coming. That includes any photos or content you may have from previous events.


Event Reports

Pattern Contest CD – Rusty Dose: Mel presented a report for Rusty. Event dates are September 5th and 6th. Rusty Dose won his class out west this year. Kudos to Rusty. Rusty has enlisted Mel to help him with the pattern event.

Windy City Jets Coordinator – Dave Murray: We have 40-45 pilots committed. The A-10 should be here and (3) L139’s for the ½ time show. We will fly until 3:00 P.M. on Sunday. Pilots are coming from Canada to Kentucky and parts in between.

Festival of Flight CD – Paul Jacobs: The festival was very successful this year with 91 registered pilots. Paul recommends that we continue that format next year.

IMAC Coordinator – Dan Knippen: We had about 30 pilots signed up from 5 states. The weather was less than perfect but it was a successful event. Thanks to Mel, Greg and all who made it happen. The pilots all love this place. Go to the IMAC web site to check your scores where you can see all the zero’s you made! Mel seconded what a great event we had considering the winds.
New Business

Cindy has announced that Dominic does not plan to run for Club President next year. Dom urges all to consider being involved in club affairs and run for an officer or board position.

Show & Tell

New planes were shown by the following members:

- Park Zone Sukhoi SU-26M, Dennis McFarlane
- Corbin Super Ace, Greg Bohler

V.P. McFarlane adjourned the meeting at 8:10 P.M.

Treasurer’s & Membership Chairman’s Report

Paul Jacobs – paul_jacobs@att.net

We welcome new members Emily Glazier, Scott David Vlk, and Bob Hesotian this month bringing our total membership to 218. Speaking of membership, I am pleased to announce that Dan Morgan has stepped forward and has agreed to become the Membership Chairman for the FVAC. You will remember Dan and his gal Donna as the couple hawking 50/50 raffle tickets at both our money making events this summer and judging from the receipts both did a great job. They also helped out a great deal at our Swap last spring. Membership Chairman is an appointed board position and Dominic will do the formal honors at the next meeting so this is my last report as your membership chairman.

The September meeting is also the time we begin discussion of the next election. As Cindy McFarlane mentioned at the August meeting, Dominic does not wish to run for the Presidents’ job next year and wishes to take some pressure off to concentrate on his health issues.

The officer positions and at-large board positions are voted on at the Christmas Party on December 4. Committee Chairman are appointed by the President. Nominations are taken from the floor at the September and October meetings and nominations are closed at the November meeting to be voted on in December. This is an election process and if you are interested in running for any position, now is the time to step forward and be nominated.

The treasury is in great shape for this time of the year thanks to the money deposited from the IMAC event and the Windy City Jet event this month. We have $ 30,144 in the checking account to finish the year and start next years’ planning for the budget. The Board this year has been very careful to spend wisely and considering the economy in general, our money making events have been very successful. Cindy and I have begun the planning for this year’s Christmas Party on December 4th and it looks like we will have some extra cash to spend on the raffle prizes. The goal for this year is to increase member participation by 50% over last year at the party. Reserve the date now on your calendar.

Till next month,

Paul
Field Chairman’s Report
Greg Bohler – gbohler@sbcglobal.net

We are already sneaking up on the end of August. We just finished the jet event. The pilots and the spectators all commented on what a great facility and club we have. I was very proud of what we have accomplished as a club. I wanted to give a big THANK YOU to all the club members that helped with all the field work and event jobs this season. You are the reason that we are the best.

Next week when everyone comes out to the field they will notice all the extra porta-potties will be gone as well as the roll off dumpster. We will keep one porta-pottie to finish the season. All of the field work for this season, except some weed and feed, is now complete. I'm looking forward to coming out and flying with everyone and not having to think or talk about projects. We will find projects for next year soon enough.

Several people have mentioned the nearing of the end of the flying season for this year. A note to the newbies, the season doesn't really have to end. Some of us divide the hobby into 2 seasons, flying and building. However, we do have several hearty souls that trade their wheels for floats and or skis and keep on flying. The field never really closes. It's open all year round, so if you are inclined you can still fly. We will keep the one porta-pottie until November. In November, we will bring all the chairs, grills, flags, and blast shields in for the winter. The catch nets will stay up.

I'm looking forward to a couple more months of great flying. I'll see you all at field.

Greg Bohler

Fun-Fly Chairman’s Report
(A.K.A. John Turner) – jtgrassroots@yahoo.com

August Fun Fly Results – Horizontal Spins with a Spot Landing

Objective: Fly E/W with a turnaround and fly W/E and do as many rolls in a limited airspace with a spot landing.

From the song “Summer Breeze” by Seals and Crofts, the title played up to our August Fun Fly by postponing the event due to high summer winds resulting in only several pilots signing up and agreeing with the decision. However, we did attempt to fly against the strong southern “summer breeze” with the consent to fly/land without any incidences!

Dave Farquhar brought out his giant CG Tiger and made several passes with a perfect landing. Danna Berry brought out his electric Funtana and kept the nose pointing towards the corn. You could have attached a string to the plane as a kite and held the plane perfectly into the wind. JT started his 5-year old Yellow Twist and flew a few laps around the field with a cross wind landing.

Our VP Dennis McFarland gave all three pilots the thumbs up with first place going to all pilots. Although the event was a disappointment for this FF chairman, I enjoyed catching the opportunity to chat about our upcoming event with the Chicagoland RC Modelers in Schaumburg. Below are the details of the event with Dan Knippen as our host. Please mark your calendar for this event and make note this will occur on Sunday morning. Thanks Dan for the invitation and look forward to some good competition with our neighbors up north.
Next month’s Fun Fly will be our annual competition with the Chicagoland RC Modeler’s Club

Fox Valley Aero Club and CRCM Club Fun Fly competition Sunday September 27th. At CRCM field. Ned Brown Woods, Golf Road, Rolling Meadows. Starting time 9:00 A.M.

Details of the event

Round One: Multitasking event for lowest time.

- Pilot will take off; Time starts when wheels leave the ground.
- Pilot will do a 5 second climb out. Pilot will then perform 5 rolls, and 5 Loops.( I will demonstrate the correct way.)
- Pilot will then do One Touch and go spot landing for Spot landing points will be added to your time.
  - Off the field 20 seconds
  - On the field 15 seconds
  - Big circle 10 seconds
  - Middle circle 5 seconds
  - Center circle 0 seconds
- After spot landing Pilot will do a 360 degree turn and land ON the field and taxi back to starting block and time ends.

Round two: Best 5 pilots of each club (Timed Event)

- Pilot will roll one die, take off and perform that number of spins and loops in that order.
- Pilot will then set up for one attempt at the limbo. If you make the limbo time will end. If you go over or miss add 5 seconds
- Time ends when you pass over or under limbo.
- If your wheels touch the field before the limbo, crashes into the limbo or cut the string 10 seconds will be added to your time.

General Rules

1. One restart allowed for each round.
2. Pit line enforced! If you pit you will be awarded the next highest time.
3. If you crash during round one, your time will given be the next highest time.

Finally, the FVAC and Naperville Prop Masters will have their annual competitive match up in October. The event is being finalized and will be posted in next month’s Flypaper.

See you at the field and Fly Safe!

JT
Chief Flight Instructor’s Report
Dan Compton – trainu2fly@comcast.net

Dan didn’t have a report for this month.

2009 FVAC Flight Instructors

<table>
<thead>
<tr>
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<th>Contact Information</th>
<th>Note</th>
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2009 Calendar of Events

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<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>September 5 &amp; 6</td>
<td>Pattern Contest</td>
<td>FVAC Field</td>
</tr>
<tr>
<td>September 10</td>
<td>FVAC Member Meeting</td>
<td>6:30 Board, 7:30 Regular at Township Hall</td>
</tr>
<tr>
<td>September 12</td>
<td>Fun-Fly Event</td>
<td>4:00 PM, FVAC Field</td>
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<tr>
<td>September 27</td>
<td>FVAC/CRCM Fun Fly</td>
<td>9:00 AM, Rolling Meadows, IL</td>
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<tr>
<td>October 8</td>
<td>FVAC Member Meeting</td>
<td>6:30 Board 7:30 Regular at Township Hall</td>
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<td>November 12</td>
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<td>6:30 Board 7:30 Regular at Township Hall</td>
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<tr>
<td>November 14</td>
<td>Last Fun-Fly &amp; Turkey Fry</td>
<td>11:00 AM, FVAC Field</td>
</tr>
<tr>
<td>December 4</td>
<td>Annual Christmas Party</td>
<td>Hilton Garden Inn</td>
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Festival of Flight Photos

An area photographer, Dan Farina, attended our event and took some outstanding photos. You can see these photos at: http://www.danfarinastudios.com/gallery/9012051_ZvgUf#599586547_4fzix. While at his website, check out his other work as well.
Fox Valley IMAC Report 2009
By Dan Knippen – Event Coordinator

The weekend of August 8th and 9th was looking rather bleak starting with rain just about all day on Friday. A few of use went out to the field to setup EZ-ups, take the side nets down and do what every we could to get Saturday morning off to a smooth start. Needless to say it never happened. We had no choice but to finish setting up on Saturday morning.

Saturday morning wasn’t looking much better with light rain, 300 foot ceiling and a 20 mph wind in your face. With helpful hands we got everything set up and registration into the new IMAC scoring program was the last thing to accomplish. I was really surprised at the large turnout of 30 Pilots that showed up to compete in the worst flying conditions that I personally have ever competed in.

By 10:30 the sky would finally allow us to fly but now the cross winds at 25 to 30 really made for some challenging aerobatic flying. Straight line flying was hard to maintain which affected everyone’s scores. As the day progressed everything clicked and with the help of Doug Swanson. The Basic and Sportsman pilots were getting their planes in the air right before the previous pilots finished his sequence. As a result, by the end of the day all five classes had completed 3 full rounds. This is a first with a total of 360 sequences flown. We had the freestyle entertainment Of Chris Gini and “Two Dogs” Dave Gustafson.

Sunday morning proved to be even more challenging because the wind was once again in our face gusting to a hot 30 + mph, but we still managed to be in the air by 8:55 A.M., and completed the contest by 12:30 P.M.

With any two day contest, months of preparation and the help of many are needed to make it a success. I would like to take the time to thank all those club and non-club members that gave their time to help out.

Mel Ziska the CD, sound man, coffee maker, registration and score sheet runner. Also to Terry D’Anca who spent many hours learning the new IMAC scoring program and two very hot windy days at the field scoring the hundreds of flights that were flown. And Dave Genoves head chef with the help of Dan Rocha, Chris Gini and his friend Kim. John Horvath, Jeff Anderson for the use of his EZ-ups, Chris Nelson for taking and developing Pilots pictures for the plaques. And to Greg Bohler for a beautiful groomed field, setting up the grills with propane and bringing us EZ-ups. Doug Swanson for keeping that east flight line moving. Paul Jacobs and his wife for help with putting the field back to the way it was.

Also, thanks to all the score sheet runners. Mike Bargman for registration help. Lou Matuska from Shoe Factory and Bob Carroll from Chicagoland. And of course all the pilots from five surrounding states that attended the contest. Last, I would like to thank the Fox valley Aero Club for allowing us to have this event at the best field around. I know I’ve missed a few people and I do apologize.
Air Show Photos
Please patronize your local hobby shops!

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We are one block west of York Road and two and one half blocks south of North Ave.  
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Monday: 12:00 to 8:00 P.M.  
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Saturday: 9:00 A.M. to 5:30 P.M.  
Sunday: Closed  

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