



TAIL-DRAGGER And "Nose-Dragger" too!



Volume 25 Issue 7

July, 2012

Bombs Away!

As all members of the Chapter know, the only flying B-29 in the world, FIFI, landed at the Southern Illinois Airport Monday June 18th. The purpose of the flight was to refuel and visit the community. Members of the Commemorative Air Force (CAF) were totally awed by the reception they received from the locals. Hundreds of folks were at the airport to greet this venerable aircraft. Especially important to this event was the appearance of numerous WWII veterans. One member of the bomber crew is assigned to meet veterans and record their stories of war-time adventures. That individual worked quite hard meeting, talking to, and recording the tales presented by the aging veterans. One such veteran was Mrs. Jean Lit. She worked as a physical therapist during the war on Tinian Island. She brought to the event a photo of her taken one week after Enola Gay made history by dropping the first atomic bomb used during the conflict. She was deeply touched by the appearance of FIFI and the attention she received during the gathering.

Bill Milton was able to visit FIFI and Dave Oliver, commander of FIFI. The person responsible for making Bill's appearance possible was Mrs. Yvonne Roberts of the VA. She was able to contact the right people and convince them to cooperate in this matter. It was great seeing Bill tour the plane and visit with the crew.



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On a personal note, the commander of FIFI, Dave Oliver, made an offer I couldn't refuse. He has provided an open invitation for me to fly the bomber anytime they are commuting. My only obligation to participate in this offer is to take care of transportation to and from FIFI's location. I made the decision that Monday night to fly in FIFI to Dallas and rent a car and drive home as I figured last-minute airline tickets would be obscenely priced. The next morning during breakfast at Mary Lou's, I indicated my intention to Dave and he and Sam Hoskins found airline tickets with American Airlines for a reasonable price. Sam took up the offer to fly FIFI and we each had the distinction of flying the B-29 as it made its way to Addison Field in Dallas – WHAT AN HONOR AND EXPERIENCE!

I had the privilege of sitting in the bombardier's seat during takeoff. What a view! One thing that was rather curious was lift off. I was unable to distinguish exactly when FIFI lifted from the runway. That was quite odd. Following takeoff, we circled around the SIU campus and did a fly-by at the airport before taking up a heading of 234 degrees. The sights and sounds present in the bomber are unique and nothing short of pure pleasure. I have very limited time in airplanes with radial engines and I deeply savored my time in FIFI.

Once out of the Southern Illinois area, I got up and moved about the plane. It has an uncanny amount of space and walking around the airplane was quite simple. I made my way to the aft section of the plane via the tunnel. Two crew members are stationed aft of the wings. Their jobs are to visually check the engines for unusual exhaust, leaks, and fire and report same. The airplane does not incorporate a fire detection system, but it does have fire-fighting equipment. Consequently, these observers are required during flight to monitor fires.

One crew station that constantly needed attention was the flight engineer (FE) position. The FE made numerous adjustments to the throttles and propeller controls. Of course, the FE focused considered attention to the myriad of gauges necessary to keep the engines and various systems operating at the intended performance parameters.

Sam found his way to the left seat. He appeared to be greatly focused on maintaining altitude and heading. You have to consider that there are around 12 crew members in the airplane that know what they are doing. So the instant you mess up, they will let you know.

I followed Sam. The first thing I noticed was the heaviness of the controls. In particular the ailerons. The aileron control rotates at least 180 degrees. And the plane seems to lack responsiveness in terms of aileron control input. I found the elevator and rudder to work as expected. Elevator trim was touchy. As I navigated around the rising clouds that appeared in our flight path, the aileron control was a bit tricky due to the lag of response. I didn't want to over-control the ailerons, so I did everything in a slow and deliberate fashion. I was so focused on flying the bomber, the rest of the world was locked out of mind. There was a set of instruments atop the main instrument panel that was easy to access and read. Other instruments were harder to find and read. It took considerable concentration to scan the all the instruments and absorb the data they provided. After a good bit of flying at 10,500 feet and 186 knots, I went to the navigator's station. There wasn't much for the navigator to do save for watching Foreflight on his ipad. With each pilot having a GPS instrument, the navigator appeared a bit idled, if not bored.

For landing I sat directly behind Dave Oliver. It was amazing to watch him move the flight controls. He rotated the ailerons in every direction and gently landed FIFI. I am certain that the responsiveness and agility of the flight controls were far slower at landing speeds than they were at cruise.

Returning to Carbondale was a much blander experience, save for the TSA. I was x-rayed and the TSA agent was going to pat me down. I gave him a stern look and he opted instead to inspect my wrist watch. Where do they get these guys? The MD-80 out-performed the bomber in terms of speed, but paled on the excitement and novelty scales, not to mention rarity.

Sandy Hoskins was waiting for us at Lambert Field and we had an enjoyable ride back to the Southern Illinois Airport where our cars were parked. I got home around 10 pm after doing a few things in the office. In the end, I am very grateful to Dave Oliver for his generous offer to fly the bomber and for the experience. In summary, WHAT A FANTASTIC DAY!

We are working on bringing the bomber back to the area. They will hopefully sell airplane rides and offer tours of this marvelous machine.

I wish to thank all the EAA members who helped with the transportation needs of the CAF crew members and who assisted in making this event successful. One person who deserves our sincere appreciation is Dave Oliver. While at SIU, Dave distinguished himself as an awesome student, fabulous CFI, and top-notch aerobatic pilot. In 2006, Dave served as captain of the aerobatic team. Under his guidance, the team won another national title and Dave won the individual award for being the best collegiate aerobatic pilot in the U.S. His recent visit to the Southern Illinois Airport was more than a homecoming for him. He brought to the area a very rare and precious aircraft that generated lots of excitement and stimulated many memories for the locals. How can we properly thank Dave for sharing FIFI with us?





Charley Rodriguez

Landing by the Numbers

When we were first learning to fly, our instructor introduced us to the pattern landing sequence, and stressed the idea that the best way to proceed was to memorize a set of numbers related to each task in the landing sequence. If each task were executed accurately, you would wind up on the runway centerline at the correct altitude and airspeed. The flare and touchdown would be the fine art of landing, and we would spend most of our energy perfecting it.

The flight path in the pattern is no less important since to make a perfect landing we need to wind up on final such that a minimum of effort is required to put the plane down gracefully. Let us review how we might use standard practices to fly the pattern consistently.

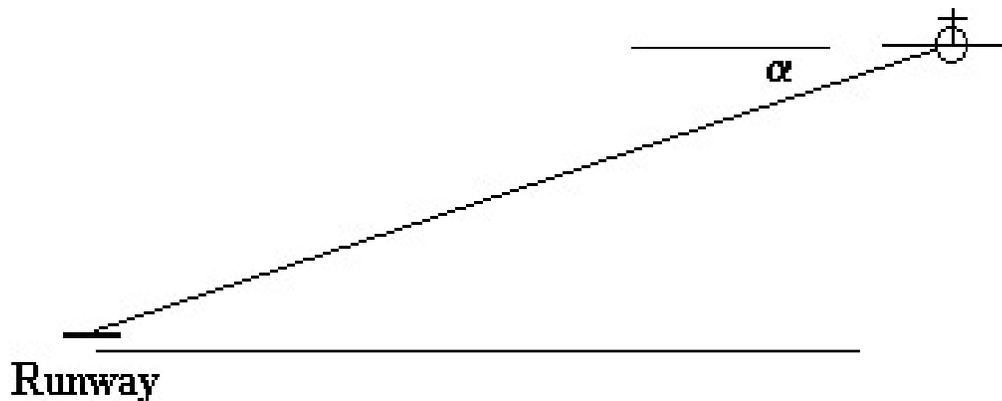
The Airman's Information Manual (AIM) suggests that the pattern altitude for most airports be 1000 feet AGL, and that we use about 500 feet per minute for a descent rate. Using these parameters, it will take two minutes from the start of your descent until you touch down. Also it is suggested that you **use standard turns** to turn base and final. A 180 degree standard turn will take one minute to complete, and if we use 30 seconds for our initial descent and 30 seconds on final, that uses up the two minutes and the 1000 feet of pattern altitude.

Your airspeed in the pattern depends on the airplane you are flying. Straight-in approaches are commonly flown at 1.3Vs, which gives you a good safety factor above your stall speed. You should also be below Vfe or the top of the white arc on your airspeed indicator.

Your airspeed during your standard turns determines the lateral distance from the runway as you fly downwind in the pattern. The 180-degree arc gets larger with increased airspeeds, and the time spent on the base leg also adds to that distance. If you expect to roll out on final at the centerline of the runway, you need to have a means to gauge how far away you are from the runway as you fly the downwind leg. Your instructor probably told you to position the runway just inboard the wingtip as you fly downwind in a low wing airplane, or some point on the wing strut in a high wing airplane. That point is going to be approximately 8 to 12 degrees below the horizon, depending on the airspeed of the plane. Below is a chart showing the angle for a given airspeed (includes a five second base leg to scan for traffic).

Airspeed		Horizon Angle	Glide- Slope
Knots	MPH		
60	69	13	4.74
65	75	12	4.35
70	81	11	4.05
75	86	10	3.76
80	92	10	3.55
85	98	9	3.34
90	103	9	3.15
95	109	8	2.97
100	115	8	2.82

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Determining downwind distance from runway

You should start your descent abeam of your touchdown target, usually the runway numbers. I suggest that whatever airspeed you use, **maintain that airspeed until you complete your turn to final**. Descend for 250 feet (30 seconds) before turning base. Concentrate on maintaining standard turns and constant descent. You should roll out on final at 250 feet AGL and 1.3 V_s , 30 seconds from touchdown, well within your ability to control the plane to flare and touchdown.

To overcome the difficulty of determining the downwind distance from the runway, try placing a sight spot on the wings or struts. The correct placement of the spots will require the help of another person and a large protractor of some sort. Park the plane on a level ramp and tape a string at eye level on the window. Using the protractor and a carpenter's level, locate the spot at the appropriate horizon angle that corresponds with your chosen pattern airspeed. Instead of spots, consider printing the airspeed you used from the chart.

You should know your plane well enough to be able to set your tachometer to a given number that will result in your chosen pattern airspeed. Set it and trim the plane for level flight at pattern altitude (1000 feet AGL) before you enter downwind. You then can concentrate on sighting on the runway for the proper distance. Your payload and fuel quantity will have an effect on the tach setting, but you should be able to get close enough for minor corrections later. Adjust your distance from the runway until it lines up with the sight spot on your wing or strut.

Almost all airplanes will maintain the same airspeed when throttled back slightly, but will begin to descend as a result. Find the tachometer setting for a 500-foot descent rate by flying straight and level at your pattern airspeed and slowly throttle back until you are descending at 500 feet per minute. The difference will probably be only two or three hundred rpm. Use this difference to begin your descent in the pattern.

Using the sight spots, standard turns and consistent air and descent speeds will result in a no thrills approach and landing, and if you have passengers, they will appreciate your skills as a pilot.

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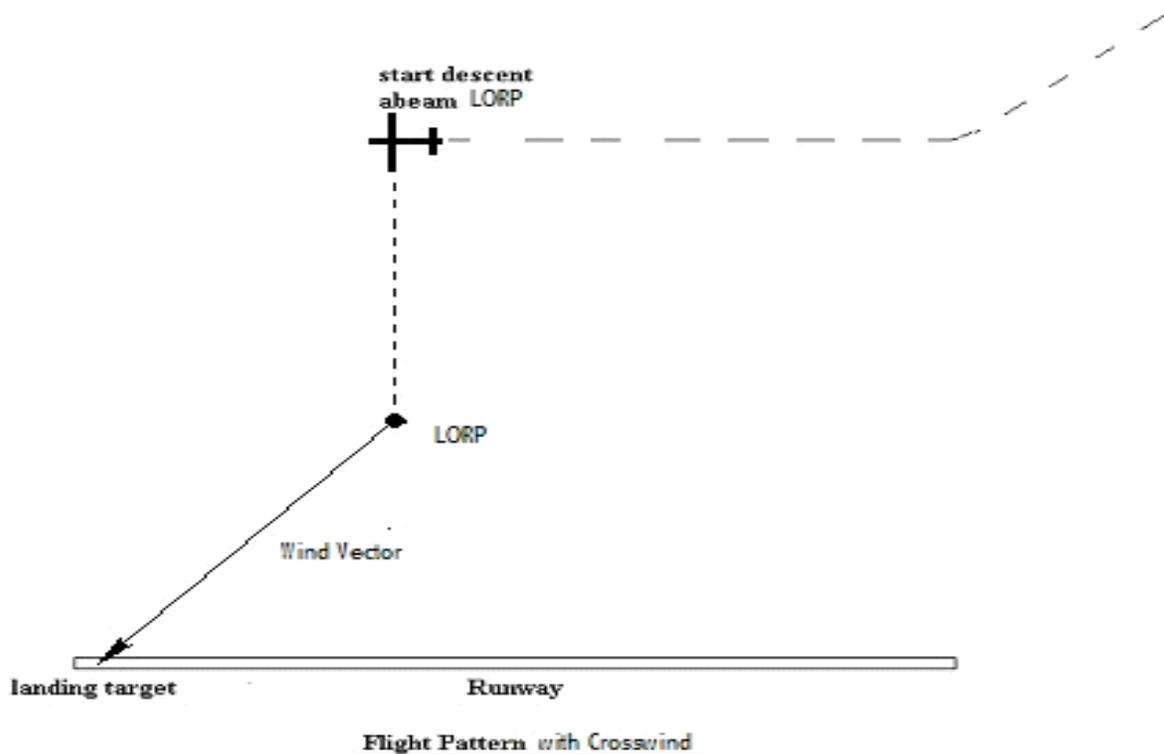
Correcting for Wind

Aviator's Definition: Wind—The movement of the ground with respect to the air mass in which we are flying.

It goes without saying that this procedure works well on a calm day. But can you still use the same procedure on a windy day? The answer is yes if you use the available wind information. The secret is to utilize that wind information to alter the point at which you start your descent. Since you know how long it takes to descend to the runway, you know how long the wind will be acting on the plane (2 minutes). Since the wind is moving us downwind, we need to compensate for it by starting our descent farther upwind than on a calm day. The rule of thumb is: **Twice the wind speed expressed in hundreds of feet.**

So if you have 10 knots of wind directly down the runway, then you should start your downwind descent at a point 2000 feet before you are abeam of your touchdown target (the numbers). Let's call this point the Landing Offset Reference Point (LORP).

Since we don't have a good way to measure 2000 feet, we are going to have to estimate the distance by our knowledge of the airport. We know how long the runway is, don't we? It's shown on the charts and also in our GPS's airport info. For instance, if it is a 5000-foot runway, then our LORP is two fifths of the way down the runway from the numbers. Two minutes after we start our descent the wind will have blown us downwind for two thousand feet, putting us right on the numbers. LORP is our reference point. It is always upwind of the point where we expect to land. It is always twice the wind speed in hundreds of feet. Upwind is usually a crosswind, and therefore LORP is probably not on the runway, but left or right of the runway depending on the wind direction. You can get wind information a few minutes before landing by radio, either from the tower or automatic broadcasts. This should give you time to consider where the LORP will be located. either from the tower or automatic broadcasts.



Using the example above, try imagining a wind vector line with the arrow point on the numbers. Imagine that line extending in the upwind direction for two thousand feet (for a 10 knot wind). Wherever the tail of that line falls is where the LORP is located.

Consider a 90-degree crosswind from the right on a left downwind. The LORP will be located abeam of the touchdown target, but at a distance depending on the wind speed. You would start your descent farther from the runway, and the wind would blow you toward the runway as you descend. Upon turning final you won't be on the centerline of the runway, but the wind is still acting on you and by the time you reach the target you should drift sideways and wind up directly over it.

How skillful are you at landing in a crosswind? Crosswind landings require that you be in a slip or a crab as you approach touchdown. I prefer to establish a slip on final after applying flaps, allowing me to concentrate on airspeed, descent and flare. In the scenario above you would not have much time to establish a slip, but one should expect a little jockeying during flare and touchdown.

Ronald Farver
EAA 539572



P-51 Mustang that accompanied the B-29 FIFI

BOARD MEETING MINUTES**July 2, 2012**

Purpose: To handle business items, leaving more time at Chapter meetings.

Members Present: Bob Amunrud, Clarke Deacon, Ron Farver, Charley Rodriguez, Steve Schlager, The meeting was held in the conference room at Midwest Aviation, Marion, and called to order by Steve Schlager at 7:05 PM.

- The Treasurer reported a bank balance of \$3034.00.
- The recent breakfast at Marion was well attended (estimated at 780 people), and several Young Eagles were flown.
- The "Coffee & Donuts" program will be July 14 at Roger Followell's, 9349 Day Road, Marion. (This is near where Highways 37 and 148 meet.) This is the scheduled C & D program until later in the fall.
- This month's program will be by Ron Farver, "Pattern Landings".
- The meeting adjourned at 8:10 pm

Membership Meeting of Monday, June 11, 2012

(Pleasant evening)

- The meeting was held at the new Aircraft Emergency & Rescue building at Carbondale airport.
- The classroom on the second floor was filled. There were 3 guests.
- The meeting was opened at 7:05 PM by President Schlager with announcements. He reported that the recent "Coffee & Donut" event was one of our best.
- Sam Hoskins reported on the successful second annual "Big Muddy Air Race".
- The program was by Gary Schaeffer, airport manager, on the projected changes in Southern Illinois Airport, many have to do with the new SIU Transportation buildings. Buildings will be added, torn down and roads added or changed. There is little effect on the flying public. All this adds up to \$\$\$\$\$.

Bob Amunrud, Secretary

REFRESHMENTS

July: Paul Smith & Vic Vicari

August: Bill Brown & Rex Bridgeman

**COMING EVENTS**

Mon, July 9, 2012 [7:00 pm]—Membership Meeting, Room 145 Av-Tech, Southern Illinois Airport.

Sat, July 14, 2012 [8:30 am]—Coffee & Donuts at Roger Followell's 9349 Day Road, Marion (his Mustang project will be on view).

Mon, August 6, 2012 [7:00pm]—Board meeting, Midwest Aviation, Marion Airport.

**CHAPTER 277
YEAR 2012 OFFICERS**

President—Steve Schlager

Vice-President—Ron Farver

Treasurer—Clarke Deacon

Secretary—Bob Amunrud

Newsletter Editor—Pat McGuire

YEAR 2012 BOARD MEMBERS

All of the above—Plus:

Membership—Marshall White

Young Eagles Cord.—Charley Rodriguez

Member-at-large—John Williams

Past President—Charley Rodriguez

2012 Chapter Dues will be accepted at our membership meeting Monday night. They are \$20.00 for the year and entitle you to a monthly copy of our newsletter and a choice of either a beige or grey chapter cap.

MEETING PROGRAM

Ron Farver will present a program on Pattern Landings.

Pat McGuire
103 South Parrish Lane
Carbondale, IL 62901



Last remaining Army UH-1 in service.

President's Column

Last winter, I was wishing for warm weather. I sure got my wish. It's almost too hot to fly, except early in the morning or late in the evening. Hopefully, the temps will moderate before long.

Last Thursday, at my hangar at the Marion airport, where some of us gather each week with our sack lunches to chat, etc, I placed a hot dog on a paper plate on the hood of my truck. It got pretty warm!

I am finalizing plans with Roger Followell of Marion (Ideal Lawn & Garden) to visit his home south of Marion on Saturday morning July 14 and view his progress on his Mustang. Coffee and donuts for all who show up (Please bring a lawn chair).

Airventure 2012 is very near, and I hope those of you who are going will bring us back some photos and tell us about your experiences at the August meeting.

Regards,

Steve Schlager, President