

# THE LANDINGS

Newsletter of Chapter 75

Quad-Cities of Illinois and Iowa, USA

February 99



Where else would a BD-5 and the Concorde share the spectator lined taxiway but Oshkosh!



Bernie Nitz is one of our Chapter 75 dependables, our Flight Advisor. He is well qualified as he is also a CFI. He feels so strongly

about this program that we didn't even put his name in the program lottery; he volunteered. Due to his busy travel schedule, he also got to pick his month.

Bernie had a Powerpoint presentation. He has graciously provided copies of the slides to the Chapter. If you want to view it or review it, you can get a copy with a Powerpoint viewer to use on your PC compatible computer if you are running Windows 95 or 98. Ask Cy Galley or Tom Shelton.

Flight advisors help

- Pilots understand their aircraft
- Evaluate aircraft vs. their needs
- Find training in appropriate aircraft
- Develop test plans
- Develop new aircraft operating procedures

This program was started in 1994. At that time over 20% of homebuilts had an accident in the first two hours of flight. After the program, virtually none.

Why the difference? Probably the pre-planning and the ability to draw upon the experience of the Flight Advisor.

Many new planes are flown by a pilot without any test time and many times not much recent flight experience especially in the type of plane he is going to fly for the first time. It is a time of high stress. Sort of like flying into Oshkosh at convention time.

Hazards in the first flight

- Excitement/Anticipation
- Cockpit work load
- Unproven equipment, this is your new plane

Have everybody possible inspect your airplane! **Listen and evaluate**—not every idea is a good one. If possible, have engine break-in done prior to first flight. Do redundant testing prior to the first flight

The airplane should be thoroughly prepared for flight

prior to your taxi tests. Confirm fuel flow checks. Double check weight and balance. Sit in the cockpit with the plane in flight attitude so you have feel for what normal looks like. Once again preflight as many people as possible.

You need a fire extinguisher but unless you are proficient with a chute, forget it. Get some time in a similar or another plane like yours. Don't mess with the weather. Wait until the weather will not be a factor. Make sure the field is not over-run with traffic.

Bernie showed us flight planning cards. Check lists of what to check and when to check them.

One of Bernie's major points was to have a flight plan and then fly that plan. He also feels it is good idea to have a chase plane, but only if the chase plane pilot knows formation flying. Just having a passenger in the chase plane to keep track of the external conditions while the test plane is flying can save much grief.

So when it comes time to fly your project, call Bernie or one of the other 1000+ hour experienced Flight Advisors

## Unusal Airplanes that Fly

Mike schenk is fascinated by the attempts of early aviaiton pioneers to design and build that "Ideal Plane." Planes that avoid the dreaded "stall spin." Planes that will take off from a football field and then fly 200 mph. Planes that will almost hover. Planes for the "common man." Planes that cost less than a car. Planes for your back yard. Planes that the FAA doesn't want to fly. His program is the result of his research about these "different" airplanes.

Come gather with your "plane" friends to see and hear what could have been, if these plane had been sucessful.

**Saturday February 13 • Unusal Airplanes that fly • Mike Schenk**

# Air Tool Basics

Gary Zilik <[zilik@bewellnet.com](mailto:zilik@bewellnet.com)>

Over the years I have learned some basic do's and don'ts of air tool use.

**Don't** use an automatic oiler. These units supply more oil than necessary to the tools and the constant flow of oil must exit someplace, usually out of the tools exhaust and onto the work piece. This is OK for Joe's Garage, but not for your future Grand Champion.

**Do** oil your tools with two to three drops of air tool oil at the beginning of each work session. If drilling lots of holes, like wing skins, stop every hundred or so holes and add a couple more drops of oil to the tool. When done for the day add two more drops and then run the tool for 1 second. This assures that the tool will not rust up by morning.

**Don't** use any old oil. Nothing but air tool oil should be used in air tools. Definitely do not use 10W-30 or Phillips XC. Oils of this type will eventually gum up the insides and the tool will only fart when the trigger is pulled.

**Do** use air tool oil.

Never, never, never use an air hose that has been attached to an automatic oiler when painting. Residual oil left in the hose will guarantee fisheyes on your Grand Champions top coat.

For painting, do use a desiccant air dryer in line with the gun. This is only effective in moderate humidity (<25%).

Have you ever notice that during a long drilling session that the drill keeps spitting water on your plane or that the splice midway in your air hose is leaking water like a garden hose. The water trap at the compressor is empty. What the heck is going on. The problem is that the water trap will only trap condensed moisture. Most traps are installed within a few feet or inches of the compressor. This close proximity to the compressed air source feeds the trap with warm (sometimes hot) compressed air containing lots of moisture. This hot moisture laden air passes through the water trap and slowly cools as it passes down the air hose causing the moisture to condense back to liquid water and spit out the tools exhaust.

To combat this I have a crude homemade refrigerated dryer that works real well.

I used a 5 gallon bucket and a placed a 15 foot coil of 3/8 inch soft copper tube inside. The tube exits at the top and bottom through holes drilled in the bucket sides and sealed with RTV. The tube exiting the bottom of the bucket is fitted with a male quick disconnect ( the inlet) and the top tube has a gascolater type water separator followed by a female quick

connect. Fill the bucket with water and ice and you have a very effective dryer as the water will condense in the copper tubes and be collected in the collator. I use frozen gallon milk jugs for ice and throw the jug in the bucket. When done painting put the jug back in the freezer. A desiccant filter is used at the gun (when painting) for residual moisture protection. I have found that for normal operations there is no need for the ice in the bucket. Just the room temperature water (65 degrees) in the bucket is enough to condense the water.

Even here in Colorado at 8500 ft. (low humidity) I have had to drain the water trap more than once during marathon drilling sessions.

## Loctite on Aircraft Bolts

From *EAA Technical Counselor News*, Fall 1995

If Loctite had been available when the aircraft standards were being written in the 30's, I believe it would be used more. I have used Loctite for many years on real problem cases and have found it to work excellent. I will be referring to Loctite brand part numbers, but there are other brands of liquid thread lockers that work just as good.

Blue Loctite #242 is a medium strength lock with a gap filling capacity of 0.005" and a full cure in 6 hours. Partial cure is 20 minutes. This is the one that I use the most. It keeps bolts from loosening, yet can be removed easily. The rudder bar pivot bolt on my plane is below the engine and cannot be tightened because then the rudder bar won't turn. The vibration had worn all of the threads off of the nut and bolt. Only the cotter pin held the castle nut on. When I replaced them, a drop of blue Loctite on the nut has kept it from vibrating.

Red Loctite #262 is a high strength locker for bolts you won't be removing and for use as a bearing retaining compound. It has a gap filling capacity of 0.007" and a full cure in 2 hours. It should be used in problem areas such as high vibration and bolts that turn. It requires more force to remove bolts with red on them, but it can be done.

Green Loctite #290 is a wicking locker with medium strength. It fills gaps of 0.004" and has a full cure in 2 hours. It can be used on pre-assembled nuts and bolts. Just put a drop on the threads and watch it wick in. It is good for adjusting screws that you want to stay put.

# GPS News and Updates

By Bob Siegfried • Ancient Aviator

This is my first GPS report for 1999. Jeppesen revision 1-99 had no new GPS approaches. My notes concerning the last few Jeppesen revisions of 1998 are lost somewhere in the vast world of my personal computer so I am not absolutely sure how many new GPS approaches were issued in 1998. My best recollection is that the number was around 325 or 330. While I can't guarantee the accuracy of that number, it is a far cry from the 500 approaches we were told to expect in the USA for 1998. Even if I have missed 50 or so, it's still not close.

The plan was reported to be that 500 new approaches would be drawn each year for the foreseeable future. I understand that each state has been advised that they can have an approach drawn at most any airport they want IF they will provide the required obstacle survey in the form required by the FAA. If there are no such requests, approaches will be drawn for airports using the existing current obstacle surveys that were performed to accommodate the existing approaches.

If you have a desire or need for more or better approaches at your home field or any other field, contact the field operator. They need to put the pressure on their state aviation folks to apply for what you want. It is not unusual for the state or the county to be able to use staff personnel to make the required surveys at little or no additional cost. Remember that the squeaky wheel gets the grease!

Good News! I read yesterday that the GPS frequencies have finally been allocated for inclusion on the new satellites. Unfortunately, that decision is about two years after it should have been made and it looks like it will set the timetable back about five years for implementation. YUK.

There is a major effort by the cellular telephone industry to get the government to take away several of the frequencies that have been designated as aircraft navigation frequencies and give them to the communication industry. This is bad news for we aviators whether you are a GPS enthusiast or not. It affects several frequencies currently used for primary and secondary radar and other navigation purposes.

Back to the present. There were 55 new GPS approaches added to the lower 48 states with Jeppesen revision 2-99. Many of those were added to existing runways with the associated overlay being canceled at the same time. Nine of those approaches were in California. Looks like the West Coast groups have the clout!

In most cases, the minima was lowered, sometimes significantly, but in others, it was actually raised! I cannot

comprehend how it can be safe to execute a VOR, VOR DME or ADF approach to a runway at a lower minima than can be done with the GPS.

There were six airports added to the IFR system with revision 2-99.

**Saluda, Virginia** gained IFR access via a GPS to Runway 36 with minima of 490' and 1 mile

**Ellenville, New York** has two GPSs, Runway 4 with 1890' and 1 ¼ mile, Runway 22 at 1791' and 1 ¼ mile. Pretty high minima but better than nothing!

**Granite Falls, Minnesota** can access the system with either a VOR DME or a GPS, both to the same runway, 34, and with the same minima, 435' and 1 mile.

**Meade, Kansas** joins us with an NDB to Runway 17 and GPSs to Runways 17 and 35. The minima respectively are 763' and 1, 623 and 1 and 508' and 1 mile.

The other two airports added are served only by NDB approaches.

**Park Falls, Wisconsin** has an NDB to Runway 36 with minima of 680' and 1 mile.

**Longville, Minnesota** arrived with an NDB to Runway 31, minima is 588' and 1 mile.

On another point, look at the NOTAMS and note the large number of NDBs that are listed as "Out Of Service." I have been told that many of those are actually dismantled and junked. They are only being listed as out of service so that the overlay GPS approach will stay published. As stand-alone approaches are developed for those runways, the NDBs will be canceled.

Editor's Note! – Bob is an ex-airline pilot, former Beechcraft dealer, who is a font of knowledge on the Beechcraft Owners e-mail list. He and his wife live on a residential strip by Chicago, Illinois where they keep their Bonanza.

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Except for the summer months of June, July, and August, monthly meetings are held 7:00 p.m. on the second Saturday of the month at the Deere-Wiman Carriage House, Moline, Illinois. All interested in aviation, are invited to attend. Please contact a Chapter Officer listed on the masthead for information on other Chapter activities. Annual dues are \$15 for a calendar year and include this monthly newsletter.

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# For Sale

Magellan Skyblazer XL with antenna \$275 Lyle Hefel 319-583-4657

Pazmany One - 1990 model, side by side 2 place, all metal, 119 Total Time with zero-time O-320, NAV-COM Loran, Mode C, Electric Trim, Cleveland wheels and brakes. \$30,000 John Wentz 309-944-6252

Professionally welded AirBike fuselage, reasonable - Call Bob Olds, 319-326-2430

Corby Starlet, fuselage & tail completed, with all materials, Estate Sale, 319-324-0126

**Wanted** - all new and changed e-mail addresses, e-mail cgalley@accessus.net

**Wanted** - Newsletter articles - Call 309-788-3238 for help composing or delivery.

**Air Aventure Day** - EAA Chapter 410, 9:00 April 24, info Mark Bauer 309-441-5488

## TAILS FROM THE FAA

### ADVISORY CIRCULAR 43.13-1B

Advisory Circular (AC) 43.13-1B; Acceptable Methods, Techniques, and Practices Aircraft Inspection and Repair;

The long awaited revision of AC 43.13-1A has been completed and is now available on the internet. The internet address is: "http://www.faa.gov/avr/afs/300/pdf/1a-cover.pdf." Once you reach the cover of AC 43.13-1B, click in the blue box which will take you to the first page of the AC. To continue, click in the blue box of the first page. This will take you to the contents. Continue by clicking on the black boxes containing the titles the sections within the chapters.

You can also get AC 43.13-1b from ..

<http://www.moneypit.net/~pratt/ac43/>

However, it might be cheaper to buy the whole thing bound and printed for \$18.95 from Jeppsen as it is almost 700 pages.



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[http://members.tripod.com/~EAA\\_Chapter\\_75/](http://members.tripod.com/~EAA_Chapter_75/)

Address Service Requested

# 1998 Dues are Due

Paper work. Paper work. Almost anything you do involves paper work. Your Chapter 75 membership is no different. Please fill out the form below and return with your check for \$15 to Keith Williams so that your membership will be dully recorded in our membership roster. Please fill in your *e-mail address* if you have one. Then you can be added to the monthly mass mailing when our Newsletter goes on line at our web site. You can also be notified when the FAA does their thing of issuing a Notice of Proposed Rule Making. You can fold and tape this sheet to mail it or bring to our monthly meeting.

For those that are undecided or want to know where your money goes... Here it is. Our major expense is postage and printing for this newsletter. The Chapter also picks up the tab for refreshments at the Deere-Wiman Carriage House meetings. Liability insurance for all our activities is the other major expense. That's about it. The officers are volunteers and receive no money, meals, or other payments.

So what do you get for your dues besides this great newsletter, a donut or two, and coffee? Well, we do have 4 of the greatest potlucks found anywhere. Now this is mouth watering, all you can eat food. Foods that you won't find in a restaurant, combined with the wonderful fellowship of your "plane" friends and family. There are 8 really fine monthly programs on various facets of aviation. These programs run the entire gamut of the spectrum. But they are programs

presented by your fellow members about what they know, have done, or researched.

There is help from your fellow member from just moving an airplane to the technical aspects that any building or restoration project may present. We have three fine Technical Counselors, a Flight Advisor, a Young Eagles coordinator, a Tool Librarian, plus many members directly employed in the aircraft industry.

Chapter 75 has one of the most complete tool library for aviation tools to be found in the free world. Tools that would cost you a fortune to buy for that one time use. Tools that only members can check out and use... No cost.

Your membership can save you real money. Savings of 5 to 10 percent off your plane insurance just because you belong to both EAA and our Chapter 75. You can even get first flight insurance for your homebuilt through our Technical Counselor and First Flight Advisor programs.

But even as you join remember, any organization is no better than the interest, participation, and support given by its members. It is no different in this great organization. We, meaning you and I, need to support Chapter 75 with more than just our money. The time spent doing a job for the Chapter is even more important. So pitch in and volunteer. Write an article for this newsletter. Send an e-mail with an idea, a topic, or a date for an activity. Assist in the Young Eagle Flights.

Thanks again for your membership, your cooperation, your willingness to help that makes this, the *best* EAA Chapter anywhere.

**Cy Galley** - editor

## EAA Chapter 75 Membership Application

*Please fold with Keith William's address outside, tape, insert your \$15 check, attach postage, and mail.*

Name \_\_\_\_\_ Spouse \_\_\_\_\_ EAA # \_\_\_\_\_ Expires \_\_\_\_\_

Address \_\_\_\_\_ Home Phone \_\_\_\_\_

Town \_\_\_\_\_ State \_\_\_\_\_ Business Phone \_\_\_\_\_

Zip \_\_\_\_\_ Ratings \_\_\_\_\_ Occupation/Employer \_\_\_\_\_

e-mail \_\_\_\_\_ optional but would be nice

Project \_\_\_\_\_ Plane Flying \_\_\_\_\_

Other Division Memberships \_\_\_\_\_ Special Interests \_\_\_\_\_

**Note! Bold** is necessary, other items optional.

Check if you want a Chapter 75 tool list.

Fold and tape with dashed line out



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**Keith Williams**  
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