

PIREPS

A bi-monthly newsletter for Nebraska pilots and Aviation Enthusiasts



Encourage and Facilitate the Development and Use of Aviation in Nebraska

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NATA's 2015 Convention

The Nebraska Aviation Trade's Association (NATA) held their annual convention in Kearney where aerial applicators from several states came together to renew their friendships and applicator certificates. Some came just to see old friends while others came to learn about new chemicals, how to safely apply them and to hear about plant diseases affecting corn, soybeans, wheat and potato fields.

On Monday, February 16, Dr. Wayne Woldt gave a great presentation on what the University of NE, Lincoln (UNL), is doing with unmanned aircraft systems (UAS, sometimes referred to as UAVs) in agriculture. Just the day before the FAA published proposed safety rules for small UAS (under 55 pounds) conducting non-recreational operations. The rule would limit flights to daylight and visual-line-of-sight operations. It also addresses height restrictions, operator certification, optional use of a visual observer, aircraft registration and marking, and operational limits. The proposed rule also includes extensive discussion of the possibility of an additional, more flexible framework for "micro" UAS under 4.4 pounds.



Dr. Wayne Woldt and a UAV

UNL has a Certificate of Authorization (COA) to operate a UAS southeast of the Wahoo airport. Wayne is operating an electrically powered UAS with a 2.2 horse power engine that has a 1 and 1/2 hour flight time using a Lithium Polymer (LiPo) 18.5 volt battery. It also has a programmable autopilot.

Wayne foresees many uses for UAS in precision agriculture and natural resources management. Some uses you may never have thought about are: improved water and irrigation management, early detection of crop and livestock stress, improved crop scouting, soil moisture, better weed detection, range management and better livestock management.

Tuesday morning began with the Professional Aerial Applicators' Support System (PAASS) presentations given by Rick Richter and Randy Hale. Rick formed his own company in 1983 doing 2,000 acres of rice in California. He now sprays 33,000 acres of rice and other diversified crops. Randy's father began as an aerial applicator in 1955 and Randy followed in his father's footsteps and has been flying as an applicator since 1981. He makes his home in Texas and says, "We need to do all we can so every ag pilot has the resources to stay safe and make it home at night." They brought up some interesting statistics: there are 23 million jobs (17% of the workforce) in the agricultural industry and it is the largest of any industry; one farmer feeds 155 persons today; in 1960, that number was 25.8. The world population is approximately 7 billion people and by 2050 it will be 9 billion. Farmers will have to continuously improve food production and aerial applicators help in that process.



L to R: Rick Richter and Randy Hale

The purpose of PAASS is to make every ag pilot safer by discussing topics such as the Agricultural Aviation's Airfield Watch, Human Factors in Agricultural Aviation - "The World of Helicopter Ag Operations", Spray Drift Reduction and Hangar Ag Flying.

The Airfield Watch module had topics such as securing your aircraft, locking facilities and being aware of any unusual activities. If you happen to see any unusual activities call your local police



“Conference Time!”

January was the NE Aviation Council's Aviation Symposium and Maintenance Seminar. February was the NE Aviation Trades Association 15th Annual Convention and following that was the National Association of State Aviation Officials (NASAO) Washington D.C. Conference.

I attended all three and I would like to tell you about the NASAO meeting and its significance to Nebraska aviation. NASAO is an advocate for state aviation organizations to Congress. It works closely with the states and other organizations to get the message to Congress that aviation is important.

Congress recently approved funding for the Federal Aviation Administration (FAA), which included \$3.35 billion for the Airport Improvement Program (AIP), the same as for FY14. Good news for all airports here in Nebraska. For 2014; we had 32 airport projects funded by AIP totaling over \$68 million. We have one of the best Pavement Condition Index ratings (86%) in the United States and that is directly due to our engineering staff working closely with our public-use airports to determine priority projects.

NASAO continues to work closely with our members of Congress to insure adequate AIP funding continues. During the Washington Conference, which 20 states attended, including Nebraska, meetings were held with FAA Managers and Directors from the Office of Airport Compliance and Management Analysis, Office of Airport Planning and Programming, Office of Airports Safety and Standards and Operations Integration Division, Commercial Space. Meetings were also held with Chris Brown, Staff Director, House Aviation Subcommittee and House Transportation and Infrastructure Committee Majority Staff. After each meeting I felt there is strong support for the AIP program to continue.

Here in Nebraska, 73 of our 81 public use airports are included in the nearly 3,400 existing and proposed airports that are in the National Plan of Integrated Airport Systems (NPIAS) which are significant to national air transportation. Each year, airports included in the NPIAS may receive up to \$150,000 in Non-Primary Entitlement (NPE) funding for necessary improvement projects. They may “bank” this entitlement for three years and then use the money or it is returned to the FAA. In Nebraska, our Engineering Department has been very successful in transferring NPE funding among our NPIAS airports to do major projects, recently demonstrated when Alma built a new 3,200' concrete runway to replace its turf runway. NASAO supports the NPE funding but some states would prefer it be given to the states' Aeronautic Departments, letting them distribute it for necessary projects. It remains to be seen if the FAA will agree to doing so.

I'm pleased I was able to attend each conference. Here in Nebraska we have an excellent system of airports serving the aviation needs of our great state.



Ronnie Mitchell
Director, NE Dept of
Aeronautics

“Distractions”

As I was considering what to write I thought of three incidents which occurred during practical tests. During a private test, the applicant failed to extend full flaps for the soft field landing with calm winds. During a commercial test the applicant almost forgot to extend the landing gear for the last landing of the test. And on an instrument test, the applicant almost failed to verify the GPS was properly configured for the instrument approach.



Lee Svoboda

What was the common thread in all three events? DISTRACTION. And who do you think was doing the distracting? It was that nasty old examiner. While in the pattern during the private test, I was discussing burned out areas due to wild fires. Again in the pattern during the commercial test, I had informed the applicant he had successfully completed all required tasks and the only thing left was to get us safely on the ground. I also commented on how well he did on the test. Finally he noticed the gear was up on final. On the instrument test, I was discussing how smooth it was and how easy the approach would be on that day. The applicant finally noticed the GPS was not right when he turned to 133 degrees and the GPS was blinking for 342 degrees.

Now you may say, what are you trying to do, get the applicant to fail? In my defense, Distraction is in the Practical Test Standard (PTS). In the preflight briefing, I put emphasis on the fact that Distraction is in the PTS and I might be babbling about some related/unrelated items during critical flight times. I also tell the applicant that if he/she wants silence in the cockpit, just ask me to be silent. I would prefer they not say, "Shut the **** Up".

Distraction is not only something we must think about during a practical test but we must also think about it every time we fly. As we review accident reports, many times Distraction is found to be a major or contributing cause. Distraction can come in many forms. It can be that little guy in the back screaming over the intercom how bad he has to go to the bathroom as you turn final on a windy day. It can be the wife asking a question while you are attempting to figure the descent rate for a circle to land instrument approach when the weather is near minimums. It can be the dog jumping over the seat while on takeoff. Distractions must be handled, some diplomatically, others quickly. The first two could be handled by asking for silence or turning the intercom to pilot only. As for the dog, he/she needs to be restrained either by a human or a cage.

Sure, I test it, because it is in the PTS. I want to make sure the applicant's instructor has emphasized a subject that may save their life someday. Pilots flying heavy iron practice sterile cockpit procedures during critical phases of flight and pilots flying general aviation aircraft should adhere to the same procedures.

FLY SAFE!!



“Gray Mustache Safety”

By David Moll

I decided to bring back the Grey Mustache issue and discuss some of the experiences that kept us older pilots safe. What prompted this was a friend flying his three-engined Falcon into the Denver area and passing a glider at 17,000 ft. Since gliders are not required to have a transponder (FAR 91.215), neither ATC nor his TCAS saw the glider. However, he has always practiced strict adherence to FAR 91.113(b) which is to “see and avoid” other aircraft through constant vigilance.



David Moll

He and I talked about this event and agreed pilots are getting lax in something as simple as looking outside before you make a turn, the same procedure you were taught during your student pilot days. Some of this is reliance on new technology and some on poor assumptions. For example, too many people think if you are on an IFR clearance, ATC gives you separation from VFR traffic. However section 5-5-8 of the A.I.M. clearly states when weather permits, the pilot is responsible to see and avoid other traffic whether or not under the control of a radar facility. The glider near miss fits this perfectly.

The second reason for this article was recently seeing a job posting requiring the pilot to have a servant's attitude. In my opinion, this demeans our profession and is truly detrimental to safety. In 2001 a passenger and I had a very tough exchange of words while waiting to take off from Aspen. The ceiling and visibility were poor and he demanded to leave. I told him when the weather improves we'll leave. He got nose to nose with me and declared he makes those decisions, not me, because I did not understand how important his schedule was. Obviously I was not going to give up my safety margins and an hour or two later the weather improved and we took off as did several other airplanes waiting out the weather. When I landed back in Atlanta, my CEO called because that passenger wanted me fired immediately. I asked him if he was aware 18 people were killed in a Gulfstream trying to land in Aspen this evening with the same poor weather. His answer showed professional respect: I'll take care of this passenger and thanks for keeping everybody safe.

Young pilots can learn a lot from this Gulfstream crash. Not only did the family of the pilot lose their father and husband, but the families of the crash victims then sued the pilot's heirs (as well as the charter operator) and were awarded \$11.7 million. Google “Gulfstream crash in Aspen” and read the Wikipedia or AOPA articles on the demands and intimidation from an overbearing passenger as if the pilots were his servants. In the end the court clearly ruled the pilot is solely responsible for safe operations regardless of passenger demands. Read it. Think about it!

Shhhh....

By Scott Stuart

I love flying! I like it when I am in the air, on the ground, reading a book. Planes are a wonderful way of life for me. They are NOT for everyone.

Many people have a very negative view of flight in a small plane. Sadly, this comes from (no surprise) all-to-often news stories about another crash of a small plane. And it might be me next, but if so it will not be for the wrong reasons, I promise!

We cannot stem the news stories, but one thing we can do (and this requires change) is to talk up general aviation. 99.9% of the time when pilots get together to talk planes the subject is the storm they just averted, or the ice they managed, or the fog that rolled in. This is good stuff for pilots and hangar talk, but, what if someone else is listening in? I have been guilty of this behavior at the local FBO, yakking it up with charter pilots, etc. And, right there behind us? The people who are waiting to board their planes! What sort of a message are we sending? I'm thinking not the one we want to or should send.

The Joseph T. Nall Report from AOPA does not report this, so call it my “SWAG:” 99,999 out of 100,000, at least, general aviation flights result in nothing more than swift, efficient transportation and a quicker trip to the mens/ladies room upon arrival. It may be boring, but it is truth, and this is what we flyers need to project to any/all who are in earshot. Our numbers are dwindling, we are aging, retiring, you name it and the youth have not come along to augment the same general aviation we know and love. Fear and fright might have something to do with the numbers “truth.” Mr. may want to fly, but Mrs. says “no way,” and that is that.

I am proud of general aviation. I am thinking you are as well, or you would not be reading this. So, what shall we do about it? Next time blab on about how boring the flight was, but beautiful. Next time blab on about how quickly you got to Timbuktu and back even though the flight was just another ho-hummer... You get the idea. Today I had a nice 17 minute flight to York for coffee, and 16 minutes on the way back. Smoooooth as glass... CAVU... What's not to like! It may seem boring to you, but it sure is music to the ears of the general public. Let's sing happy tunes and tell the better stories when prospective passengers are about!!!

Gear down and locked?

Correction---Correction---Correction

In the Feb/Mar 2015 edition of this newsletter, on page one: The right photo at the bottom of page one was identified as Tom Frakes and Nancy Braden. It should have read: Tom Schmitz and Nancy Braden. Our apologies to Tom Schmitz.



Scott Stuart



In Search of an Ercoupe...

By Jerry Tobias

Recently I have written about why I have ventured into Light Sport flying and about my preparation for LSA flight. Getting re-qualified, safe and comfortable again took a lot of effort. However, I was surprised that the most challenging part of my return to the air was finding the right airplane!



Jerry Tobias With His Ercoupe

After considering my options, I decided to look for a vintage 1946 Ercoupe 415-C. But locating a good Ercoupe was not as easy as I thought it would be.

I began my search by joining the Ercoupe Owners Club (EOC) and then attending their annual convention at Wayne, NE, last June. That was a good place to start because I saw some nice Ercoupes and met many members of the friendly and knowledgeable Ercoupe "family," some of whom contacted me about airplanes they knew were for sale. I also started watching the online marketing sites for other Ercoupe listings.

However, I soon learned the condition of LSA-qualified Ercoupes – all built in the 1940s – can range from very good to pure junk! And although listings with photos and written descriptions are helpful, they never tell the whole story. That's when the EOC and other Ercoupe groups and websites became so valuable. With their guidance, I was able to quickly learn a lot about Ercoupes, what to look for, what to avoid and what questions to ask of owners.

I also discovered details about specific Ercoupes from the FAA aircraft certification and registration data that is readily obtainable from the FAA or through AOPA and others. I would not have uncovered some significant, game-changing information (accident reports, AD/maintenance issues and records uncertainties, etc.) about several potential Ercoupe candidates without this data source. These facts, of course, were good things to know!

Finally, after several months of investigating and seriously considering nine airplanes, I found my Ercoupe. However, having just put the airplane through an early, very thorough annual inspection, I discovered that it still wasn't the airplane that I thought I had purchased. The good news, though, is that I now know with certainty that I have a really good airplane – thanks to the superb maintenance team at Fremont.

Though not always easy, this long process did produce my desired end: I now have a great little machine that will allow me to keep flying. Just as important, my Ercoupe has also already given me the opportunity to meet some exceptional people and to make some new friends! With that in mind, stop by my hangar in Fremont anytime (I will supply the Cokes and the polishing rags)... or, I hope I can meet you at a fly-in somewhere soon!

Light Sport and More

By Dick Trail

Lately I've been called to instruct in a variety of older aircraft. These are airplanes that the industry produced to meet the expected exploding market demand for civil private aircraft to be flown by returning WWII pilots. Unfortunately the demand fell short but a fair number of those wonderful old airframes still survive.

Aeronca 7AC—the Champ, Taylorcraft BC-12—simply T-Craft, Aeronca 11AC—Chief, Stinson—Station Wagon, a ragwing Cessna 170 and even a "complex" Navion. The Champ and the T-Craft also meet the requirements of Light Sport Category.



Dick Trail

Most of those 1940-era aircraft come with conventional gear and can be intimidating for pilots who learned in Cessna 150's. The Champ and T-Craft are sans electrical systems and must be hand propped. Both have heel brakes (barely adequate); again, strange to modern pilots. The lack of a radio can be a blessing although I usually carry a battery powered intercom and a handheld radio.

Most airplanes of that age also come with a paucity of a Pilot Operating Handbook (POH), as in never had one. Operating limitations are marked on the instruments and maybe a few placards. Checklists? None from the manufacturer but the homemade ones are simple and work just fine. If you are lucky the airplane's siblings wore military livery with a functional checklist.

The next surprise for recently trained pilots is terrible adverse yaw in the old designs. Any movement of the ailerons demands rudder input. Once airborne on the first flight it looks like my students are trying to kill snakes with the stick. . Rudder-aileron coordination is demanded and the skill comes quickly.

Actually I love teaching in what were the training aircraft of the post-war era. In my opinion recent-trained pilots in "nose draggers" have lazy input with the rudder and the tail wheel quickly piques those skills.

Adverse yaw due to aileron input at the stall causes roll and spin entry quickly follows. Yes, these old airplanes will and do spin but they also recover nicely from fully developed spins. In my opinion a valuable skill for any pilot.

Any aircraft is a challenge for the newbie to learn to fly well. The older ones I am privileged to teach in may have strange systems: try the hydraulics in a Navion, go low and slow, they're loud and breezy inside but they all produce something universal. That something is the radiant smile on the pilot's face as he/she taxis in after that first solo.

Now if I could find just one Designated Pilot Examiner in Nebraska that will give a checkride for Light Sport my world would be even happier. I have to send my students to Colorado to "git'er done." Sad.



“Looking Out The Window”

By Tom Winter



Tom Winter

My flying life has been first a matter of admiring airborne model planes from the ground, followed finally, in my 50s, by admiring the ground from an airplane. I built my first model airplane when I was about nine or ten. Couldn't get them to fly under power, but being sheet balsa, they made pretty good gliders, especially with a steel chair-glide for ballast on the nose. Most successful of these was a sheet balsa Curtiss Robin. I threw it like a baseball, and it would transition into a glide. One flight will never leave my memory: it was flying sweetly, it turned, and was gliding straight down the street. Nice! But, oh no! Here comes a car! I watched, hopelessly waiting for the steel nose to break the car's windshield! It slope-soared right up the slope of the windshield and over the car. I can still see it.

Oh, but when the wind came up, and the thermals got active, the planes could go OOS, “out of sight.” One big-name contestant suffered this fate, and rented a plane to find his big model. First idea I'd had of what flying has become for me: looking down. Not looking for lost model airplanes (though I've sure lost some!) but appreciating the scenery.

Once upon a time, when I was a free-flight modeler, and serving as an official at the 1987 AMA Nats, the outdoor freeflight contests were held at Mead, NE. The big free flight gas models clawed for the sky for a 30-second engine run, then transitioned to glide. My job was to certify that there was no over-run, and then keep my eye on the model for 180 seconds, the maximum endurance time, and if all competitors “maxed,” then they'd fly again until the modeler who was best at picking thermals - out-maxed the other contestants and won the event. Since the planes were all trimmed to fly in circles, the distance to retrieve would only be (at most) the radius of the circle plus wind drift.

The scenery is always changing. Does Nebraska's fall color rival New England's? Or Michigan's? The pat answer is no - unless you're aloft looking down on all the fields! True, we don't have as much red, but flying over Nebraska's fall fields is an aesthetic delight. Then later, if there is snow, all the contours are accentuated. The land does not look as flat, and the plowing contours are fields of abstract art. And of course, at any time of year the sand-braiding Platte is best appreciated from the air. Fall color — gold, burnt sienna, dirt brown, brilliant yellow, all in neat patches — why, I could be a little child again, at play over one of Mom's quilts!

Obstructions, oh there are obstructions. I used to think, collecting Model A engines for a Pietenpol project, that that tall radiator right in front of you, would be a blinder, and I should put that radiator under the nose. Then one day, cruising out to a fly-

ing breakfast, I was crabbed into the wind enough at 90 mph that I was looking ahead out the side window! In a Piet, which is not happy going much over 70 (I read that somewhere), you'd be looking to the side to see ahead any time the wind was not dead-on!

The fabulous C150 is only somewhat better:

Case #1: my big solo cross country was to Marysville, then Nebraska City, then home to LNK. Piece of cake. I'm up. I'm a big boy pilot! There's Pickerell, there's Beatrice... Marysville? I never did see Marysville! Finally there was this huge body of water! Amazing! How did the Mississippi River get over here? It was the Twilight Zone in full daylight. Pulled out the Kansas chart. Oh. Turtle Creek Lake. And down there — aha! There's a bridge! I found the bridge on the chart, and turned around. On the ground, my CFI told me what I had done: “You were looking for landmarks over the nose!” Okay. Fly on the right hand side of your course line! That was Tak Yamamoto, and Tak, if you are reading this, I remember you fondly, and I'm still grateful! Yup. A 150 doesn't need a tall radiator front and center!

Case # 2: Tak and I were in the east practice area, and Departure called traffic at our 10 o'clock. Didn't see it, so I lifted the left wing and held it up there with rudder to get a better look. “Nice slip!” said Tak. I still do that. If I really want to clear right or left, I lift the wing and hold it there still to this day. Interestingly, the engine and prop sound different when you are slipping.

Case # 3. The Sweetie Pie and I have been blessed with a grandson, right here in town. Of course he gets airplane rides. If the weather isn't fit for flight, he wants to go even if we drive. When he was small, I got him some cushions, so he could see out the passenger window. After a few airport breakfasts, I, too, realized that I could benefit from some extra height. Nowadays, padded upwards like a five-year-old, I see out the right window about as well as the yours-truly-the-unpadded-pilot saw out the left window. And I have better visual leverage over the nose! Thank you Grandson Eric!

Then I got to know Chuck Levsen at the Clinton, Iowa airport. Chuck restores Ercoupes, and gave me a flight in one. Well, talk about a treat! The low wing obstructed the downward view less than I had thought, and I loved the visibility! Why, I could see the airstrip from everywhere in the pattern! Now, except where close-in towers make big patterns less than a good idea, such as at Marysville (and as for Marysville what the heck were they thinking putting a tower that close to the runway?) or North Omaha, I fly a wide enough pattern with gentle turns, to see the airstrip from everywhere in the pattern.

You may have heard the story of the farm boy who went off to college, got a pilot's license there, and when he got home, just had to take his dad up in a plane. They were in no hurry. Flew over the streams, the valleys, the lines of trees, and of course they flew over the farm. Dad never said a word. They landed. They got out and walked toward the FBO. Dad still silent. Finally the lad says “Well?” And his father replies: “All these years I never realized I was looking at the farm sideways.”



“Skyline at Duncan Aviation”

Portions of this article courtesy of Danielle Kavan of Duncan Aviation



L to R: Bill Lyon, Ronnie Mitchell and Aaron Hilkeman - In Front of a B747 Engine Inlet

Yesterday (Wednesday, March 4) I had the opportunity to tour the new maintenance facility at Duncan Aviation here in Lincoln. Former NDA employee Bill Lyon accompanied me while President and CEO Aaron Hilkeman was our tour guide.

The 175,000-square-foot facility, comprised of two 40,000-square-foot maintenance hangars and 95,000 square feet of office and shop space, provides even more shop and work area for services that cover most business aircraft.

According to Chairman Todd Duncan, “We needed the additional hangar space to stay flexible enough for all of our customers. Before, we might not have been able to schedule a long-range jet for a smaller job because we already had several light jets with full interiors and airframe inspections scheduled.” As the industry continues to shift toward larger business aircraft, a trend fueled by technological advances and increased globalization, Duncan Aviation’s previous hangars were unable to accommodate the volume of maintenance, modifications and completions work their customers require.

Though the entire structure wasn’t officially open until May 2014, the north hangar was complete and full of aircraft in early January. Airframe Services Manager Chad Doehring said, “To properly prepare for the opening, we strategically located, hired and trained additional technicians throughout 2013, building up our teams. We’ve continued to do the same this year.”

During Team Leader Troy Nail’s 13 years at Duncan Aviation, he’s seen a lot of changes—and one immediately recognizable change is the size of the facility. His Challenger airframe team was one of the first to start work in the new maintenance hangar.

As Duncan Aviation has grown and expanded over the last 58 years, the company added buildings and hangars. With the investment in the new hangars, all areas of the company were evaluated



Bombardier Global Airframe

and a plan to reorganize and relocate departments and teams for more efficient workflow was developed.

For example, the Bombardier Challenger and Global airframe teams will be in the south hangar bay and Dassault Falcon teams will share resources in the north hangar. “It just makes sense to have the same programs together so we can share tools, equipment and other resources,” says Troy.



Dassault Falcon Undergoing 3 Week “C” Inspection

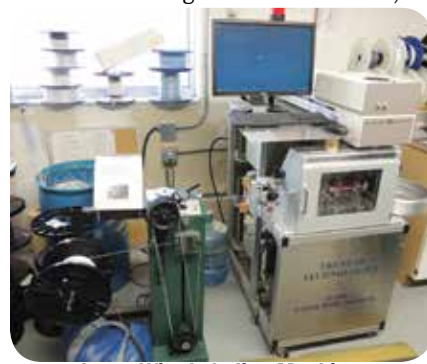
Troy says before the move, with aircraft spread among six hangars and schedules changing by the minute, it was difficult to ensure each technician had the tool he needed when he needed it. Now, with hangars grouped by aircraft make and model, the necessary tools are a few feet away instead of a few hangars away.

In addition to the scheduling and team changes, the facility itself is much more comfortable to work in. Heated floors make for a much warmer environment during bitter Nebraska winters, and the LED lighting combined with the skylights and abundant windows create a lighter and brighter space.

Of course, customers are requesting faster and faster turntimes on their aircraft. And more aircraft in general means more team members, so Duncan Aviation is capitalizing on all its resources to turn aircraft in record time. Not only is the company adding team members, it is changing hours for several existing team members, allowing for more work to be done on second and even third shifts.

“We’re increasing the size of our teams so we can have more people work on the second shift,” says Troy. “Adding more skilled technicians to alternative shifts helps ensure we complete an aircraft on or before the delivery date.”

With the reorganization of teams, Duncan Aviation’s new hangar



Laser Wire Labeling Machine

facility also provides the engine line shop with its own dedicated space. Previously, engine line mechanics worked on the hangar floor; they now have their own custom 4,050-square-foot shop. (In addition to the 20,000 square foot TFE731 engine MPI shop.)

As a souvenir of my tour, I now have a piece of electrical wire with my name lasered onto it every 3 inches. The new hangars are stupendous and allows Duncan Aviation to service larger aircraft. And I like my souvenir piece of electrical wire!



NATA's 2015 Convention **Continued From Page 1**

department or the National Response Center at 866-427-3287. Video surveillance is the coming thing to protect your assets. Now that wireless cameras are becoming less expensive you can see what's going on using your laptop computer or your smart phone as well as recording what the camera is seeing.

What role do helicopters play in ag operations? There are 537 of them involved in 15% of active ag flying but they account for 25% of the accidents. In Nebraska, 94% of ag operations are done with fixed wing aircraft while 3% is done by helicopters and 3% by other means.

Advantages of helicopters are: great for small fields, confined areas, around wind farms, uneven terrain and where there are many obstructions. Some disadvantages: pilot training is more extensive, expensive to operate, complex, must have dedicated ground equipment and the cost to customer is higher. Other problems concern maintenance; time limited replacement of rotating components and purchase price. Fixed wing aircraft aren't cheap either with a turbine powered aircraft running close to \$1 million.

But it wasn't all work without some play! Dr. Jerry Cockrell was the luncheon speaker and did he ever tell some funny stories



Dr. Jerry Cockrell

while getting his point across to the audience. He is an early advocate of Crew Resource Management. If you would like to see and hear one of his stories about "negative learning or negative motivation" just go to YouTube.com and do a search for Jerry Cockrell. The video is about 11 minutes long but I believe you will enjoy it!

That afternoon Rick and Rusty presented the Spray Drift Reduction module. Spray drift can occur with temperature inversions, light winds and a variety of other factors the applicator must know about. One item is the pump fan which provides pressure for the hopper liquid to be ejected through the spray nozzles. Balance of the fan blades is critical to good operation of the pump and it can be stopped by either a manual or electric fan brake. The control handle for the brake is called the "money handle". When it's on you're making money but when it's off you aren't.

Wives of the aerial applicators had their own meeting and I had the opportunity to look in on them during their activities. Diane Bartels, author of the book "Sharpie: The Life Story of Evelyn Sharp - Nebraska's Aviatrix," gave an excellent presentation to the ladies about Evelyn, who was one of our early women pilots. She died in the crash of a Lockheed P38 aircraft which she was ferrying from the factory to an Army airfield during WWII.



Author: Diane Bartels

WNATA (Women's Nebraska Aviation Trade Association) activities during the convention was an Athena presentation, "Life Interrupted," presented by Jane Pitlick from South Dakota.



Jane Pitlick

The Athena Program is a NAAA Support Committee (formerly the WNAAA) sponsored educational program providing women with helpful insight into the agricultural aviation industry.

It's designed for women in the industry by industry members and presented by women of the industry. Whether they work directly in the aerial application business, or provide a source of support for someone who does, this program provides useful information and encouragement for everyday situations.

The Power Point presentation encouraged feedback and sharing experiences from the women attending. Preparing for life's interruptions including employee issues, accidents (aircraft or otherwise), weather, customers, and financial as well as government issues were included. The program stressed preparing for the unexpected, being flexible, staying positive, taking time to recover and utilizing support as well as providing others with support when needed. (This portion of the article was provided by Mary Lambrecht.)

UNL Extension Educator, Alan Corr gave a great presentation on "Spray Plane Equipment Calibration" which is checking the spray pattern of the aircraft both visually and by measurement using cards and a "string" which capture the number of spray droplets emitted by the boom nozzles. During 2014, Alan did 43 aircraft on 358 passes to optimize the spray pattern of the aircraft. He also went to South Africa this past year to assist those applicators with their aircraft spray patterns.

Dr. Bob Wright, Professor of Entomology and Extension Specialist at UNL, gave a presentation on "Rootworm Management" and how they are spreading in the midwest.

Next up was Tamara Jackson, UNL Specialist on "Corn Disease Management." Most of her research is done at the South Central Agricultural Laboratory near Harvard. She talked about Goss's Wilt and Blight and its impact on corn and popcorn near Atkinson. She also suggested going to the UNL Crop Watch website to help farmers and applicators identify problems in their fields.

Dr. Stevan Knezevic, UNL Specialist, "Weed Management", explained to the audience how weeds are becoming resistant to five herbicides which have the product Glyphosate in them. He said there are 720 registered herbicides in Nebraska's Weed Management Guide and 81 of them contain Glyphosate. He mentioned the weed, Water Hemp, which has become resistant to five herbicides and how it can be spread from one field to another by using the same combine from an infected field to combine one that is not infected. He suggested getting the 300-page Guide to

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Events Calendar

- **York Airport (JYR)**, EAA Chapter 1055 Fly-in breakfast (free will donation) on the 1st Saturday of every month, 8:00-10:00.
- **Crete Airport (CEK)**, EAA Chapter 569 Fly-in breakfast on the 3rd Saturday of every month. 8:00-10:00.
- **Seward Airport (SWT)**, Midwest Aerobatic Club regular meeting 3rd Saturday of the month at noon.
- **May 2, York Municipal Airport (JYR)** Larry Smith Memorial Fly-in breakfast, 8am-10am. Please wear something red, fly a red streamer from your plane and wear some pilot "stuff". More info: Kyler Nelson 402-721-8924 or kylercarolyn@qcom
- **June 5 & 6, Hebron Municipal Airport (HJH)** 2015 Nebraska State Fly-In and Air Show. Friday, 6:30pm: Dinner (ticket charge) and USO-Style Show open to the public. Saturday: 7am-12 noon: Fly-in. Breakfast 7 - 9:30am. FAA and AOPA safety seminar on site. 9:30am: General admittance - no gate charge. 10:00am: Grand Opening followed by SAC museum science education event for families, Car & Tractor show, "Passport to Aviation" (scavenger hunt), NWS, UNL Robotics team, local businesses, vendors and concessions, local community groups...and so much more. 1:00pm: Honor Guard and Air Show. Performances include: Pitts Special, Staudacher, World's Shortest Runway, Hiperbiplane, Cub Comedy, P-51 Mustang, P-40 Warhawk and the Rocky Mountain Renegades Formation Flight Team. More info: www.hebronairport.com or Steve: 402-200-8930.
- **June 7 Central City (O7K)** Fly in breakfast 7am to 11:30am Lunch from 11:30 to 2pm. Fly-Ins Eat FREE! More info: Don Shorney 308-946-3450.
- **June 13 (2NEO)** just south of Lexington. Johnson Lake Annual Fly in breakfast. More info: 308-325-5657 or email: Dan.keller@doranpost.com
- **June 21-Creighton (6K3)** Fly-in Breakfast 7:00--11:00am, in conjunction with Berrypepper Days celebration. More info: Harvey Sorensen at 402-360-4235.
- **June 25-27 Seward (SWT)** International Aerobatic Club's East/West Challenge with over 50 competitors. More info: Ed Bowes at edbowes@windstream.net or 402-785-1060
- **June 28 Pender, (OC4)** Fly-in breakfast 8am-noon, for more than 40 years. Pilot in command free. More info: Paul Peters: ppeters@skyww.net or 402-380-9882.
- **July 10-11 Gould Peterson Memorial Airport (K57) Tarkio, MO**, 12th Annual WingNuts Flying Circus Air Show and Fly In, Friday, plenty of food, beverage and music. Saturday breakfast at 6:30am, demonstrations and airshow More info: 816-262-8500 or Brookes Hurst 816-244-6927
- **July 12 Elgin-Koinzan Airfield (NE44)** 24th annual Fly-In breakfast 7am - noon, all you can eat. Good company. Free to Fly-ins. More info: Lynn at 402-843-5800

"NATA 2015"

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Weed Management in Nebraska (\$15) which is a comprehensive resource for current research-based information and UNL recommendations on weed management in Nebraska crop production. It has special sections on fungicides, insecticides, and pesticide application equipment and safety. It includes detailed drawings and photos to aid in weed identification, as well as photos to aid in insect and disease identification.

FAA FAASTeam member, Dan Petersen, gave a presentation about suggestions on how to avoid complaints concerning aerial applicators at work. And last but not least, Tim Creger, Pesticide/Fertilizer Program Manager for the NE Dept. of Agriculture, updated the group on recent state and federal laws and regulation changes.

2015-2016 NE Airport Directory

The 2015-2016 NE Airport Directory is now available to Nebraska residents. You may pick up a free copy at many of our public use airports across the state. We will also mail you a free copy if that is more convenient.

If mailing, please send this page with the mailing label above to:

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