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2008 NAAA President

BOB BAILEY

Also in this issue:

New NAAA And WNAAA Officers

41st Annual NAAA Convention Highlights

Ag Industry Leader - Bill Lavender of *AgAir Update*

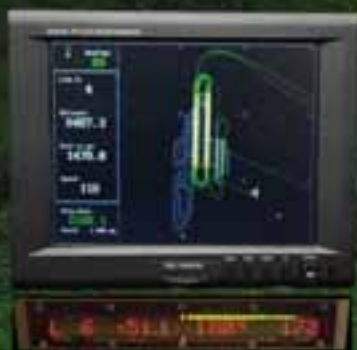


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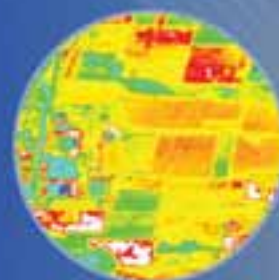
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The purpose of NAAA shall be to advance the aerial application industry and its members in their efforts to enhance agriculture, and to protect the public health and the environment.

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2008 Chairpeople will be listed in the March/April 2008 issue of *Agricultural Aviation*.

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President's Message

BOB BAILEY



CONTINUING PROJECTS IN THE NEW YEAR

It is my honor to serve as the president of the NAAA for 2008. The people that have held this position in recent years have done an excellent job, which makes mine a whole lot easier. As 2007 President, Rod Thomas said, when he accepted the position, "We just need to keep the wheels from coming off during my term." The wheels didn't fall off; therefore, this means that the previous officer team and staff have done an outstanding job in their responsibilities. The officer team that I look forward to working with in 2008 consists of Vice President Danny Tinnes (CO), Secretary Eric Klindt (MN), Treasurer Brian Rau (ND) and WNAAA President Patti Cline (WA).

I have every intention of continuing the work of the ongoing projects of the NAAA. The new Agriculture's Air Force video that is in the works will hopefully be brought to the membership and the public later this year. Besides the new video, NAAA is working to establish a 'scholarship' that will help get new pilots in the industry and/or award operators who help train new pilots. Watch future issues of this magazine to read articles about mentoring and recruiting for the aerial application industry.

The continued support and success of the PAASS program will be a priority of the NAAA officers and staff, as it has been in the past. PAASS is an extremely important program in this

industry for the improvement of safety, security and drift mitigation. If you have not attended PAASS yet this year, please make time to attend the program at your state/regional association convention.

Andrew Moore, myself and several other NAAA members were able to tour the U.S. Department of Agriculture's (USDA) Agricultural Research Service's (ARS) facilities in College Station, TX in October to witness the research and projects that are taking place to better our industry. NAAA and the aerial application industry are huge supporters of USDA-ARS because they work to research new technologies and products that enhance each of our businesses, whether you're an operator, pilot or allied company working in this industry.

It is an impressive facility, and the research they conduct is equally impressive! I would encourage every one of our members who get a chance to visit that facility and see first hand one of the several successes of the NAAA. The continued support of this project will be another focus of the NAAA during the next year.

Again, it is an honor to serve NAAA and its membership this year. If you are a member, thank you for continuing to support an Association that makes your job easier and if you're not a member please join today by filling out the form on page 40. ✈



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Executive Director's Message

ANDREW MOORE



REVIEWING 2007, FORECASTING 2008 AND BEYOND



On the whole, the 2007 aerial spraying season was both productive and profitable for the average aerial applicator in the U.S. The biggest driver affecting the season was higher commodity prices, particularly for corn. Also helping the season was the marked yield increases from foliar applications of fungicides during corn's tasseling stage. The Midwest was the greatest beneficiary this season, but many pilots and operators throughout the country were able to help the Heartland meet their extreme demand, which was needed work for some regions that were logging below-average hours.

In Washington, DC, one of the biggest issues NAAA dealt with was FAA Reauthorization, whereby Congress determines how it will raise and spend money to maintain U.S. aviation operations and infrastructure. Earlier in the year, the FAA proposed an airline-backed plan to significantly increase the amount general aviation (GA) aircraft pay into the federal aviation infrastructure system. Airlines believe they pay more than their fair share into the system and want flight user fees levied on General Aviation Aircraft to reduce what they pay into the system. As a result, a U.S. Senate Committee went so far as to markup a bill that required certain GA aircraft to pay a \$25 per flight surcharge in addition to federal excise taxes that are currently levied on GA aircraft fuels.

NAAA scored a significant victory by successfully urging the Senate Bill to exempt agricultural aircraft from the proposed \$25 flight fee. However, at a minimum, most of GA will see an increase in their tax rate on aviation fuels. The House and the Senate Finance Committee passed bills to increase general aviation's Jet A tax rate by over 64 percent from 21.8 cents per gallons to 35.9 cents per gallon. The bills also increased the Avgas tax rate by nearly 25 percent from 19.3 cents per gallon to 24.1 cents per gallon. Because of

NAAA's efforts successfully urging Congress to enact laws providing a full and complete exemption from federal excise taxes levied on aviation fuels used to make aerial crop applications (an exemption that had been in place on fuels for ground equipment used in farming for years), it appears our industry should be safe from these fees and tax increases, yet this isn't certain until we see a final bill signed into law. NAAA will continue to fight for this outcome. If successful, this will be another huge savings for the industry. If the exemption was lost and agricultural aviators had to pay the proposed GA increased rate on aviation fuels it would cost our industry and the farming industry over \$20 million a year!

Another issue we have been following closely this year is the Department of Homeland Security's Chemical Site Security regulations. More on this rule and NAAA's efforts to influence it can be found on page 14.

In addition, NAAA has been urging Congress to enact legislation to make aerial application operations eligible for a tax-credit of up to \$50,000 for security investments made at such operations. Tax credits cover 30 percent of the aggregate amount paid or incurred at a facility. The Senate Finance Committee included such language in a bill it passed pertaining to the Farm Bill and NAAA is pushing hard for this language to end up in the final version that is sent to the President, which, like FAA Reauthorization, was supposed to be addressed in 2007 but has been pushed into 2008.

When we started this year we were facing concerns that the new party in control of Congress and public calls to control government spending might result in the Association losing additional congressional funding for the USDA-ARS aerial application research program in College Station, Texas. The program develops and tests new aerial application technologies designed to mitigate drift, improve fuel effi-

ciency and make aerial applications more efficacious. NAAA efforts have resulted in increasing the budget for the ARS program by \$4 million over 7 years. This includes an additional \$600,000 that was approved by the President before the end of 2007.

In terms of public and media relations issues, 2007 was one of the most active years since 2001 in terms of contact from the national media. Earlier this spring, NAAA sent out a nationwide press release to all media outlets on the Associated Press news-wire, which is received by literally thousands of radio, print and TV outlets nationwide. This was sent to prepare rural communities that aerial applicators would be in their area helping treat farmers' crops so these residents wouldn't be caught unaware and so that the Association could establish itself as a contact in the event that the media was to do a story on the industry. A variety of stories were conducted, and the coverage was mixed. The local coverage overall tended to be more fair and positive about the benefits aerial applicators provide to agricultural production. Unfortunately, large media outlets tend to focus on controversial aspects. A new direction in which the larger media has been focusing is the future of the industry. In 2006, this was a story angle which a variety of media outlets, from *USA Today*, *The Miami Herald*, and other major newspapers, covered. In 2007, the Associated Press rehashed the subject and got the story wrong. The AP reporter painted a dire view of the industry. It is always a challenge when talking to the larger and national me-

dia outlets because of their ignorance of agriculture and blindness to facts and angles not smothered in controversy. Mark Twain once said, "There are laws to protect the freedom of the press's speech, but none that are worth anything to protect the people from the press." With this profound quote in mind, it is important when speaking to the media to always focus on the positives about our industry. Anything you say may and can be held against you and the industry. NAAA is ready to help with talking points and to talk to the media directly or to refer them to the best sources in the industry to address their inquiries. So please send media inquiries to NAAA if you don't have the time, or comfort or interest in talking to them directly.

Just to touch on the future of the industry for a moment: EPA statistics from a survey they conducted last year shows that the average number of years of experience for an ag pilot is just over twenty-five, but there is no indication that the industry is fading into the sunset. 30 percent of the industry has twenty years of experience or less – that's a sizeable youthful population.

Plus, with forecasts that the world will have to double its present-day agricultural production by 2050 in order to feed our growing population and meet the growth that bio-energy demand has placed on farmers today, this demand is sure to help fill our pilot ranks and markedly increase the number of acres we treat for farmers.

The issue of supplying the industry with future pilots is an important one.

NAAA is not sitting idle on this issue. We are updating our promotional video Agriculture's Air Force to include a chapter focusing on recruiting pilots. We hope to have an end product toward the end of this year and will use the video to distribute to the industry, media, educational institutions, flight schools and other aviation trade schools to help not only in strengthening the public image of our industry but also in bringing in new pilots to sustain our industry well into this century.

One other public relations success we will see this year is getting the Smithsonian Air & Space Museum's Satellite Facility at Dulles Airport to display a second ag aircraft. The first ag aircraft that went up last year was a Huff-Daland. In the next few months, the museum will display an Ag Cat that is generously being donated to NAAA by Ralph Holsclaw of Growers Air Service in Woodland, California.

Turning to education and safety issues we are celebrating the tenth anniversary of the PAASS program. The program continues to enable ag aviators potential insurance discounts and CEU's to maintain their pesticide applicator licenses. We are most pleased with the consistent trend we are seeing in decreased accidents and drift claims since the program first hit the stage in 1998. In 2007, we had 73 accidents. This is the second lowest number on record for any year since records have been kept. Last year, 2006, we ended the year with 61 accidents. Once we get the General Aviation Activity Report from the FAA for 2007 later this year, it is very likely

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to show a significant drop in the number of accidents per 100,000 hours flown for 2007 because of the heavy number of hours logged as a result of treating the abundance of corn acres.

On average, over the past decade since PAASS hit the stage, the agricultural aviation accident rate per 100,000 hours flown has decreased by 20 percent. And drift claims have decreased by nearly 26 percent!

This year we will continue to focus heavily on education to address accidents and drift incidents by sending out

fax and email safety alerts to operators throughout the busy spray season reiterating the safety messages brought forth in the PAASS presentations.

The outlook for the 2008 season and beyond is full of optimism. Continued demand for corn for bio-fuel and the spread of Asian Soybean Rust throughout the country this year are indications that 2008 could be another busy season for us. The price of fuel is a concern. However, technologies are being developed that allow for lower volume applications, variable rate applications and alternative fuels for power plants that

will serve as a partial solution to this problem.

Again, the long-term forecasts that agricultural production must double to address the demands for bio-energy and to feed the growing world population means aerial application will play a significant role aiding farmers in meeting this demand. But we will have challenges. We need to continue to strengthen our focus on ensuring the industry can expand. We are making headway by developing recruiting tools that include establishing veteran ag pilots as mentors, and updating our video to include a recruitment chapter.

The increased activity in 2007 reiterated the importance for our industry to have reciprocal agreements among the states to allow ag pilots to quickly cross borders to conduct aerial work. We are working with the EPA to develop a national aerial pesticide application exam to supply to the states to better foster reciprocal agreements between the states in honoring out-of-state applicators' licenses. We must also urge retailers, manufacturers and our own applicators, when local application demand arises, to work through in-state, professional operators that are familiar with the local application conditions and regulatory environment.

NAAA is ready for these challenges. The 2007 Officers set in motion some great plans and programs. The industry owes a tremendous amount of thanks to Former President Rod Thomas for his great service to the industry, particularly his focus on mentoring new pilots. Also thanks should be given to NAAREF President Scott Schertz, former WNAAA President Teresa Bair, former Secretary J.R. Reabe, former Treasurer Wayne Keahey, and former Vice-President Gary Del Carlo.

The Board has left NAAA in good hands with the 2008 Officer crew of President Bob Bailey of Texas, Vice-President Danny Tinnes of Colorado, Treasurer Brian Rau of North Dakota, Secretary Eric Klindt of Minnesota and WNAAA President Patti Cline of Washington. They are well qualified to make 2008 another strong year for agricultural aviation and to set a strong foundation for the industry's long future. ✈



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WNAAA President's Message

PATTI CLINE



WHAT I LEARNED THIS SUMMER....

I am honored to be chosen as the WNAAA President for 2008. I have a wonderful executive team to work with this upcoming year: Vice President Jane Barber, Treasurer Elaine Gustafson and Secretary Janice Everett. Each of these women has dedicated her time and resources to serve the WNAAA, and I look forward to serving with them.

My goal this year as your WNAAA President is to be a good spokeswoman for our organization and the industry. I welcome the opportunity to visit your state/regional conventions and any other meetings that I can to promote our industry.

I would like to encourage each of you to join the WNAAA and attend the functions available at your state/regional associations and at the national convention. I have met some amazing women that have taught me a lot about this industry and working with our pilots and husbands to help make it a safer and more professional business.

I now have a network of women within our industry that understand our business and its risks that I can call on anytime to help me work through a tough day, season and issue, whether it's personal or professional. I can call these same women just to share ideas and laugh; they are great sounding boards and friends. I see within the WNAAA a group of women that have developed lifetime friendships, no matter how many miles separate them.

This last year has been an interesting one. One filled with twists and turns, new adventures and old acquaintances. I would like to be able to share some of the lessons I've learned in the upcoming year with you.

You may not know that my husband was involved in an aviation accident while fire fighting this last summer. Although he walked away with minor injuries, it was an eye- and heart- opener for me. The Athena Project presentation on Crisis Management was driven very close to home, and I highly encourage each of you to review that program and file it away for that 'just in case' time.

But back to what I learned: I learned in a flash how much I loved, appreciated and admired my husband, Ron Cline. I learned there was a group of women that I met within the WNAAA that would be at my side in at a moment's notice, and I learned that the network of other people in this industry would help me with whatever I needed. All of this was freely given because the people within the NAAA and WNAAA are like an extended family.

Our church and family were my immediate source of support in the first few hours while waiting for status updates on Ron's condition, and then came the women from the WNAAA. These women understood the risks, the questions about dealing with government agencies, how to plan the next few days and how I felt about Ron flying again. While my prayers gave me peace and hope, the added thoughts and prayers from these women, for both us, gave me strength.

I tell you this to encourage your involvement and support of the NAAA and WNAAA by becoming active in your state associations, paying your dues on both local and national levels and attending your state/regional and national conventions.

Your state/regional association supports your legislative issues and offers local networking. The National Association provides back-up for those issues with their network of contacts, lobbying for the agriculture aviation industry and providing a professional staff in Washington, D.C. to support our industry. Personally, I have found working with the NAAA staff a pleasure and a consistent source of help, ideas and support. Paying your dues keeps them working for us!

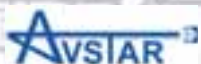
As the year progresses, I will to continue to share some of the lessons I have learned in hopes of helping you, your business and well being. It will be a fun year getting to know you better and I hope I can be an open door for you to become actively involved in the WNAAA. I am excited to serve you and our industry! ✈



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This industry gives us opportunities to serve our customers in crop, fiber, forestry production and other areas. Obviously we must do this in a safe and considerate manner. I do believe that in order to have successful, safe and considerate operations we must operate them in a manner that provides adequate profitability to sustain and improve these operations. When an operation is financially successful, it allows for many enhancements that support safe and efficient operations; needs such as talented ground personnel, proactive maintenance practices and the strength to say “no” when needed. These are all things that take adequate financial resources, and by doing these things, you improve the long term profitability even more. There is more to look at than just how much cash is left at the end of the year, and whether or not you have enough money left to pay the bills and buy a new vehicle. To evaluate what is really going on with an operation, you need to look at what cash is really produced and adjust it for reasonably anticipated future costs, such as turbine engine maintenance.

There are at least three sets of figures an operator should look at for at least the last five years in order to see where the operation is going financially. The main figures to review are the earnings that are corrected for non-cash costs and expected future costs. The other two are the non-cash costs (the actual depreciation of assets) and expected future costs. By looking at what your average costs are over a long time period such as five years, you can more accurately determine what costs are and when cash needs to be set aside for future needs. Due to inconsistent tax laws, it would be useful to remove book depreciation, interest and taxes to provide a clearer picture of what's going on. In this earnings figure, you should add back in allowances for future or deferred costs, such as major turbine engine repair and other major maintenance costs.

To evaluate what is really going on with an operation, you need to look at what cash is really produced and adjust it for reasonably anticipated future costs, such as turbine engine maintenance.

From that, you can create ratios on how those costs vary based on acres and aircraft hours. Ideally this should be fairly steady with some improvements when more work is done due to beneficial economies of scale. As fuel becomes an ever greater part of our cost structure, it is important to track not only direct fuel costs but also how much the fuel costs per acre and hour, as well as operational efficiency to allow a way to anticipate effects of fuel cost changes.

Many times, operators think of these costs in the context of per hour costs, yet they tend to charge per acre. I believe that it is more relevant to look at these costs in the per acre basis since that is the ‘units’ that we typically price on. It will make the numbers more relevant if a five year average is used, especially for tracking maintenance costs and productivity. Obviously, taxes and interest are costs that this model sets aside and must be provided for in the real world. By removing these for profitability analysis, you can get at the underlying cash flow which allows the operators to evaluate current operational results in a consistent manner (by removing the year-to-year variation of depreciation and interest) and to make improvements. This analysis allows enhancements in operations, pricing strategies and even your business plan to make for the necessary returns to enhance safety and the effectiveness of your operation and our industry. ✕

DHS' NEW CHEMICAL SITE SECURITY REGULATIONS IN EFFECT JANUARY 18, 2008



The Department of Homeland Security (DHS) released its final list of chemicals under its Chemical Site Security regulations on November 20, 2007, prompting a 60-day countdown before the rule takes effect January 18, 2008. If a facility determines that it possesses any of these regulated chemicals at any point in time, in a threshold quantity, it must register with the DHS and complete the Agency's Web-based "Top Screen" program no later than January 18, 2008. The DHS list of "potentially dangerous chemical substances" is quite extensive and includes substances commonly used in agriculture by aerial applicators.

To view the final list of regulated chemicals, also known as Appendix A, go to www.dhs.gov/xlibrary/assets/chemsec_appendixa-chemicalofinterestlist.pdf.

If it is determined that a facility possesses or plans to possess any of the chemicals listed in "Appendix A: DHS' Chemicals of Interest" list, at or above the screening threshold quantity (STQ), the facility must register with the DHS. Please remember that it can take up to 30 days to receive a username and password from DHS after registering. The username and password are required to complete the next step known as the "Top-Screen." More information on completing a "Top Screen" may be found at: www.dhs.gov/xprevprot/programs/gc_1169501486197.shtm.

Once facilities complete the "Top Screen" process, DHS will notify them within 30 days whether they need further work regarding the vulnerability of their facility to attack. Facilities with little or no risk will be notified by DHS that no further action on their part is necessary. Higher risk facilities will be required to complete a DHS' "Security Vulnerability Assessment (SVA)," and, subsequent to completion of the assessment, a "Site Security Plan."

An SVA requires a facility to provide the DHS asset characterizations, threat assessments, a security vulnerability analysis, risk assessment and countermeasures analysis.

A "Site Security Plan" requires a "Covered Chemical Facility" to meet the following standards:

- Address each vulnerability identified in the SVA, and identify and describe the security measures implemented to address each vulnerability;

- Identify and describe how the security measures address applicable risk-based performance standards and potential modes of terrorist attack (i.e., vehicle-borne explosive devices, water-borne explosive devices, ground assault, etc.);
- Identify and describe how security measures used meet or exceed applicable performance standards for the tier level in which the facility is assigned; and
- Any other relevant information DHS may deem necessary regarding the facility.

Compliance, at least in terms of registering with DHS and completing the "Top Screen," applies to all facilities, regardless of industry, in possession of chemicals on DHS' Appendix A list at or above the threshold amounts.

NAAA, working with a coalition of agricultural organizations, was successful in urging the DHS to remove certain chemicals used in agriculture on the Agency's preliminary regulated chemical list and in increasing the threshold amounts of other regulated chemicals on the initial list. For example, urea is off the final list, but was on the preliminary list and several other products are being adjusted to include higher threshold quantities. Propane remains on the list but at a significantly higher screening threshold quantity. DHS has evaluated the way propane is used in the economy and adjusted the STQ to 60,000 pounds from 7,500. Propane containers of 10,000 lbs. or less do not have to be counted at all. Other key products and threshold quantities on the final list include, but are not limited to: ammonia (conc. 20 percent or greater) 20,000 lbs.; solid ammonium nitrate (nitrogen content of 23 percent or greater) 2,000 lbs.; dimethylamine herbicide (Banvel, Savage, 2,4-DB 200) 10,000 lbs.; isopropylamine herbicide (Stalker, Chopper, Hasten) 10,000 lbs.

Chemical site security regulations were intended to apply to the larger chemical manufacturing sites so it is not expected that small sites that take possession of materials for brief periods of time in quantities just at or above the threshold amounts will have to do more than the Top Screen analysis. Nevertheless they must do the Top Screen analysis so that they are following the letter of the law. ✕

WELCOME TO THE 2008 NAAA & WNAAA OFFICERS

By Mary Lou Jay



**NAAA
President
Bob Bailey
Bailey Flying Service
Dalhart, Texas**

1. How did you get involved in the ag aviation industry?

My dad and uncle started the business in 1971, and I was born into it in 1972. I have worked on the ground crew fueling and loading airplanes since I was old enough to drag the hoses to the airplane and big enough to climb up on them to wash the windows.

The only time I have not lived in Dalhart, TX was the three and a half years that I was at Texas A&M getting a degree in entomology so that I could return to work in the business. I then took over the field scouting duties for the business and eventually moved into its overall management.

Coming into my business, I had to choose whether to manage or to fly; I chose to follow my father in the management role. I think that every professional operator is a businessman as much as a pilot is. The ability to focus on the management of the business has given me the opportunity to grow the business as I have.

I do fly a Cessna 210 as my vehicle between operations.

2. How would you describe your company today?

It's a family owned and managed business, and I'm a second-generation operator. I have two older sisters, and they were involved in the business as we were growing up.

Dalhart is the base of Bailey Flying Service, and we have an office in Guymon, OK, that we run together. My oldest sister and my brother-in-law Tom run an office for me in Wilcox, AZ. We also have another company, Bailey Flying Service of Plainview, LLC, in Plainview, TX.

3. What type of aircraft do you use?

We have three aircraft in Dalhart—an Air Tractor 802 and two 602s. In Arizona, we have an Air Tractor 402, and in Plainview a 510 Thrush.

4. What type of crops do you spray?

In Wilcox they do a wide variety of crops, including alfalfa, corn, milo, wheat and some vegetable crops. They also do greenhouse work where in the summer, planes spray greenhouses with a product to help control the amount of sun entering the greenhouse. In the winter, they spray a wash over the greenhouses to allow for more sunlight to enter. In Plainview the staple crop is cotton; in Dalhart, our primary crop is corn.

5. Do you use your aircraft for any other purpose?

We don't use our aircraft for anything except ag work, which includes some dry work and seeding.

6. What do you consider your greatest professional or career accomplishment?

I'm the second generation to run this business, and since the time I've taken it over, it has probably doubled in size.

One thing we have done is diversify. We're running ground rigs now, which are a good complement to our airplanes and have gotten into the fertilizer business. We're aiming more towards that one-stop shop business to cover all of our customers' needs.

7. When did you first become involved in NAAA, and what offices have you held?

I began serving on the NAAA board of directors in 1997 as a representative from New Mexico after attending the Syngenta-sponsored Leadership Training Program. I have served on several different committees during this time, including Budget and Finance, Long Term Planning, Research and Technology and Nominating.

In 1999, I served as secretary for the NAAA, and I have served as the convention committee chairman since 2000. This chairman's job has proven to be both challenging and rewarding, since the convention is one of our most important activities in terms of bringing the industry together and providing a large income source for NAAA. The committee members and the staff spend countless hours working to make the convention a success.

8. What do you see as the greatest threat(s) and the greatest opportunities for the aerial application industry in the next several years?

That is obviously regionalized. In Colorado and in the Deep South, water is going to be a huge issue for agriculture. That can be both a threat and an opportunity, because as water becomes more limited, the grower has to be more efficient in production. The aid of ag products that we can apply can be a benefit to them. But the decrease of water can also lead to a decrease of production, which is a decrease of opportunity for us.

The biggest threat is petroleum price and availability. The fuel prices are a huge issue, but the more the world becomes dependent on petroleum resources, the less available it will be for smaller industries such as ours.

The one thing that provides us with the most opportunity is directly related to commodity prices. Over the short-term future, in a two to three year outlook, I see commodity prices supporting our industry. There are also technologies and better

continued on next page

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products, like fungicides for corn, that we can use and show an increase in yield. So the technology combined with the prices will be an awesome opportunity for us.

9. Are there particular areas or programs you will be focusing on during your year as NAAA president?

We're going to focus on getting more membership out there, on bringing people in and showing them what the association does for them.

10. What do you wish that the general public knew about the ag aviation industry?

I wish they understood the safety of our industry—how seriously we take the safety of our airplanes, how safe that pilot is in an accident situation. The public doesn't understand the safety of the products that we apply to the food crops to help make production agriculture more efficient.

Personal note: Bob has been married for seven years to Susan. The couple has two children, Madelyn (4½) and Mitchell (3).



**Vice President
Danny Tinnes
Air Care, Inc.
Lamar, CO
Years in
ag aviation: 32**

Company stats: Air Care is a family run business, with Tinnes' parents and brother Montee all involved. They fly Air Tractor 502s and spray alfalfa, milo, corn, wheat and some specialty crops like onions, pumpkins and cantaloupes.

Start in the industry: "I was born into it. Actually both my mom and dad were apprehensive about me working in the industry, and they sent me off to college, where I earned a bachelor's degree. But finally one summer, when I had more ratings than any of the other pilots and still had a desire to spray, my dad started me and another pilot the same day."

Joined the NAAA: "Probably 16 years ago when I first started flying. This is my first office in the NAAA, but I am past president of the Colorado Aerial Applicators Association. I've also been through the NAAA Syngenta-sponsored Leadership Training Program, and I've been on the NAAA board since 2004."

Goal in the NAAA: "I think one of the best things that the NAAA does for us is PAASS [the Professional Aerial Applicators Support System]. Along with PAASS, I'd like to see us focus on bringing in new, young pilots."

Personal: Married to Coleen. Tinnes has two children, daughter Lauren (12) and son Luke (8).



**Secretary
Eric Klindt
Tri-State Air Ag
Campbell,
Minnesota
Years in
ag aviation: 11**

Company stats: Tri-State Air Ag is a branch of Wilbur Ellis, which has a total of seven spray planes. Klindt is a pilot for Tri-State and flies an Air Tractor 502.

Start in the industry: "During

high school, I worked as a laborer for a local farmer in Breckenridge, MN. He also did aerial spraying, and I got interested in that. I went to the University of Minnesota, Crookston, and earned an associate's degree in ag aviation. After working for the farmer for three years, I went all over the country working—northern Minnesota, Wisconsin, Texas, South Dakota—and in 2001 accepted a job with Tri-State, which put me back in my home territory."

Joined the NAAA: "I was a member for many years, but became more active in 2002, the year I attended the NAAA's Syngenta sponsored Leadership Training Program. I've been membership committee chair since 2003."

Goal in the NAAA: "I'd like to establish a program to help get more young pilots involved in ag aviation. It could be a mentoring program or something similar. I'd also like to try and get everyone who sprays with an airplane to become an active member in NAAA."

Personal: Married to Shana since 2000. They have one daughter, Elise, and are expecting another child. Shana is active in WNAAA and does much of the custom embroidery for the WNAAA booths at various events.



**Treasurer
Brian Rau
Medina
Flying Service
Medina,
North Dakota
Years in
ag aviation: 27**

Company stats: In business with his wife, Elly. They have one aircraft (a 500 gallon Thrush). Crops sprayed include potatoes, small grains, sunflowers, corn, flax, beans, canola, pasture and have a Conservation Reserve Program (CRP) where they spray product to control noxious weeds.

Start in the industry: "My father had been flying for several years and did most of the spraying for our family farm. I received my commercial pilot's license in 1979 and started spraying for the farm in 1980. I continued to work for my father and a

few others in the Red River Valley, then started Medina Flying Service in 1997. Today I do primarily commercial work."

Joined the NAAA: In 1986, and has been the North Dakota state director to the NAAA for the last three years. Rau was also the Communications & PR Committee Chairperson.

Goal in the NAAA: "To maintain the financial soundness of the NAAA while serving its members, and to maintain the excellent programs that they have going on right now."

Personal: Married to Ellen (Elly) Rau for 22 years. They have two adult, married children. Brian remains involved in the family farm business with his two brothers and his father. He is a nationally registered paramedic and has been an EMS instructor for the last 16 years, serving with the Medina Ambulance and Fire Department.

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**WNAAA
President
Patti Cline
Central Valley
Helicopters
Ellensburg,
Washington**

1. What was your introduction to the ag aviation industry?

I got involved when I began dating my husband in 1999. I worked at an orchard doing database and financial management. Ron did some work for us and gave me a helicopter ride. That started the whole thing.

As our relationship got serious, I started working on the weekends in his business. I came to work full time for the company in March 2005.

2. What role do you play in the business today?

I'm the office manager; I do all the bookwork and the payroll.

3. What is the size of your company, and how do you use your aircraft?

We have three helicopters. The Enstrom F28 model is our spray helicopter, and we primarily spray Timothy hay and a little bit of wheat.

Our second helicopter, the Enstrom 480, is primarily used for

charter work, especially for Fish and Wildlife surveys.

Our big helicopter is a Huey UH-1H, which we use for cherry drying and fire suppression. We also do fire work under a federal contract with the U.S. Forest Service in late summer/early fall.

4. When did you first become involved in WNAAA? What offices have you held?

My first convention was in 2001, and I attended one of the WNAAA programs. I was amazed at how involved the WNAAA was with educational issues around agricultural aviation. I was very impressed with how committed the women were in supporting each other and the industry. I wanted to be part of this group.

I went back to the Washington association and told them I wanted to be their director from the state because I wanted to be involved. I was treasurer of WNAAA in 2006 and vice president in 2007. Also in 2006 I became the executive secretary for the Pacific Northwest Aerial Applicators Alliance to further support our industry.

5. What do you see as the role of the WNAAA today?

I see our role primarily as education. The WNAAA supports education with the scholarships it gives each year and through Ag in the Classroom, FFA Ag shows and Women in Agriculture. With

the Athena program, WNAAA supports and educates the office staff and wives in the business. They have developed programs to help support the pilots, ground crews and each other.

Our business is a little bit different, and it helps so much to have other women whom you can call on. They work within that industry and understand the risks associated with it. WNAAA not only supports educating around those issues but also provides a network.

6. What are your goals for your year as WNAAA president?

I want to be a good spokesperson for WNAAA, whether that involves going to other regional or state conventions or any other meetings that will support our industry.

I'm following some amazing women, and I'm so honored to be part of them. There's a dynamic group of women in the WNAAA that I am just in awe of.

7. What do you wish that people knew about the ag aviation industry?

That this is a safe and professional industry. Ag aviation businesses have their customers' and their communities' best interests in mind. The public has become afraid of chemicals, but these businesses are professional and they're not out to harm others or the environment. That is the message that the WNAAA is promoting.

Personal note: Patti and her husband, Ron, were married at the 2002 NAAA convention in Reno, NV.



**Vice President
Jane Barber
Brett's Spray
Service
Onida,
South Dakota
Years involved
with ag aviation: 15**

Company stats: Two 502 Air Tractors; spray sunflowers (their mainstay) and also corn, winter and spring wheat, some soybeans.

Got a start in the industry when: "I married Brett in 1992. I used to flag the farms once in a while but did not have an agriculture background at all. I was a



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pharmacy tech. Today, I do it all—including loading the mix for the airplane and all the bookkeeping and scheduling.”

WNAAA experience: Joined in 1992, when she married Brett Barber. She became South Dakota director in 1995 and since that time has served as either state association president or national director.

Goal in the WNAAA this year: “I’d like to see it grow in numbers, see more of the younger pilots and their spouses get involved in the organization. It has a lot to offer, and I think people take it for granted. I don’t think people realize the power that WNAAA carries or the benefits it gives us.”

Personal: Husband Brett Barber passed away in 2003. Today, son Terry owns the business. Jane has five grown children (three girls, two boys) and four grandchildren with another on the way.



Secretary
Janice Everett
E & M Flying
Service
Holly Grove,
Arkansas
Years involved
with ag aviation: 25

Company stats: One Air Tractor 602, two Air Tractor 502s. The company’s number one crop is rice, but they also do corn, cotton, soybeans and wheat.

Got a start in the industry when: “My husband started the flying service, so that’s how I became involved. My career was as a family nurse practitioner, but I did billing for the business on the side from the very beginning. I retired from nursing in 2003, and since that time have worked full time in this business, doing all the bookkeeping and office work, scheduling the work, ordering products and dealing with customers.”

WNAAA experience: “I’ve been a spouse member since my husband joined the NAAA in the late 1980s but wasn’t very active. After I retired from nursing and started doing this full time, I shifted my energies into WNAAA.”

Goal in the WNAAA this year: “I think one of the most important roles that the women can play is educating the public on the role of ag aviation in agriculture. So many people don’t understand how big a part we play in the production of food, especially in the grain industry.”

Personal: Married to Randy Everett for 30 years. The couple has a married daughter and a married son, Brandon, who flies the 602 in the family business. Brandon has three daughters.



Treasurer
Elaine Gustafson
Crop Air Inc.
Eaton, Colorado
Years associated
with ag aviation: 25

Company stats Crop Air has two Air Tractors, a 400A and a 502B. The company sprays mostly field corn, plus some onions, beans, beets, alfalfa, with the season running May through September.

Got a start in the industry when: “I met my husband, Dana, when working for a chemical company. We married in 1985, and I began working in the business in 1987. I handle the bookkeeping for the business.”

WNAAA experience: “My husband has always been a member of the NAAA, so I joined the WNAAA in 1985. I started getting more active in 1993, when I became a director, and I have been a director off and on since that time.”

Goal in the WNAAA this year: “To carry on with everything good that the association does. WNAAA does a lot of good with education, trying to get its message out to young people. There’s a lot of bad publicity out there; people think that ag aviation is unsafe, but it’s not. The pilots are professionals, and the chemicals are much safer than they used to be. I want to let people know it’s a good industry.”

Personal: Elaine and Dana have been married for 22 years. She has two grown daughters and two granddaughters. ✕

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41ST ANNUAL NAAA CONVENTION & EXPOSITION A SUCCESS IN RENO, NV

By Lindsay Barber,
NAAA Director of Communications

Did you attend the 41st Annual NAAA Convention & Exposition in Reno this past December? If so, thank you for attending and participating in the fun and educational convention events. This year's convention, "Food, Fiber and Fuel for the Future" was a success because of the sponsors, exhibitors, attendees and speakers who participated in all of the events. Our convention would not be successful without all these parties.

Monday morning commenced with the annual Kickoff Breakfast sponsored by BASF.



Dean Englehardt discusses the 'science' of crashing photos at the Kickoff Breakfast.

The breakfast featured stunt pilot Dean Englehardt, who shared his experiences as a motion picture stunt pilot and aviation career with the attendees focusing on his many "successful" (as in, "non-injurious") plane crashes.

Monday's activities continued with the ASABE Technical Sessions, which were organized by Dr. Dan Martin of USDA-ARS in College Station, TX. There were eleven presentations, several of which will be included in future 2008 issues of Agricultural Aviation. The presentations included information about enhancing low volume fungicide applications on corn with additives; the effect of non-volatile rate on spray drift potential; and the comparison of electrostatic and conventional applications and remote sensing and variable rate application of cotton defoliant. All of the presentations and papers will be available online at <http://apmru.usda.gov/downloads/downloads.htm> in mid-February.

Monday evening, convention attendees enjoyed catching up with old friends and meeting new friends at the Welcome Reception and PAC Slot Tournament, which was held to raise funds for NAAA's AgAv PAC and members of Congress who are supportive of the agricultural aviation industry. The first place winner was Van Lucas (IA); the second place winner was Doug Chanay (KS) and the third place winner was Cary Rucker (KS).

Tuesday morning's General Session covered two very important topics for operators, pilots and allied companies. The first speaker was Dr. Abner Womack, a professor of agricultural economics and co-director of the Food and Agricultural Policy Research Institute (FAPRI) at the University of Missouri. Dr. Womack forecasted the agricultural economic outlook for 2008. He stated that 2007 was a record year for farm income at \$87.5 billion in the United States. Dr. Womack stated that he foresees a shift in crops for 2008 and that there will be more soybeans and wheat and less corn than in 2007. He also stated that it is important for each aerial applicator to know all of the details about their customers to best serve them, such as their farm size, crops grown, crop rotation and amount of rented land. Stay tuned to a future issue of Agricultural Aviation for a full report of Dr. Abner Womack's presentation.

The second part of the General Session featured an insurance session moderated by Jim Anderson of Starr Aviation Agency and included speakers Betsy Fulton of AIG Aviation, Shaen Phillips of USAIG and James Mason of Phoenix Aviation Managers. The speakers gave a few suggestions to prepare individuals in the event that they may be involved in a drift claim, such as:

- Call your insurance company immediately if you suspect trouble. It is very important to let your insurance company know when something has gone wrong or you think there may be a drift claim. The sooner insurance companies know about potential problems, the sooner they can be handled.

- Take pictures if you can.

- Gather as much information as possible about the incident including: time, place where the accident/incident occurred, weather conditions, witnesses with contact information, crop protection products applied and other applicators involved, including ground rig operators.

The March/April Agricultural Aviation magazine will include an article that goes into further detail on the insurance session.

Rod Thomas, 2007 NAAA President, opened the doors to the trade show on Tuesday afternoon. The floor featured 110



(l to r) Bob Bailey, 2007 NAAA Convention Chairman; Rod Thomas, 2007 NAAA President and Andrew Moore, NAAA Executive Director open the trade show on Tuesday.

exhibitors, five airplanes and one helicopter. The trade show hosted the Live and Silent Auction, which is held each year to raise money for NAAA and WNAAA programs. This year's auction was a huge success thanks to all the companies who donated items to the auction. See the live auction donations and highest bidders on the next page.

There were several educational concurrent sessions available for attendees at the convention and the meeting rooms were full of attendees at each session. The concurrent sessions that took place included firefighting, helicopters, chemical, insurance, security, application technologies, NAAREF's Compaass Rose program, radial engines, Pratt & Whitney Canada engines, Walter engines and Honeywell engines. Sessions also took place for the airframe manufacturers Air Tractor and Thrush. Thank you to all members and speakers who helped to organize and participate in the concurrent sessions!

The convention closed out on Thursday evening with the Farewell Banquet, partially sponsored by DuPont Crop Protection. The banquet hosted the annual Awards Ceremony where several distinguished people in the industry were given awards. Please see "Award Winners" below. President Rod Thomas awarded the Falcon Pin to Randy Hale, who was the 2006 NAAA President. The Falcon Pin is given at the discretion of the NAAA President to individuals who have made substantial contributions to the ag aviation industry and its national Association. ✂

Congratulations to the 2007 Award Winners

Agrinaut Award

Presented to an aerial applicator or organization that has made an outstanding contribution in the field of ag aviation operations.

Scott Schertz

Schertz Aerial Service Inc.
Hudson, IL

Allied Industry Award

Presented to NAAA members, staff and/or an allied industry individual who has significantly contributed their efforts for the benefit of the allied industry and their exhibit efforts.

Chuck Kemper

Queen Bee Air Specialties Inc.
Rigby, ID

Delta Air Lines "Puffer" Award

Presented to an individual who has made an outstanding contribution to the design of agricultural aircraft and/or related equipment.

Gerald Beck

Tri-State Aviation, Inc.
Wahpeton, ND



2007 Award Winners (l to r bottom): Aaron Peterson and Eric Klindt. (l to r top): Tom Harkin, Dusty Dowd, Whitney Beck and Cindy Schreiber Beck for Gerald Beck, Patricia Stamps and Scott Schertz. (Not pictured Carolyn Baecker, Chuck Kemper and Gene Williams)

John Robert Horne Memorial Award

Presented to a pilot with five years or less experience in the agricultural aviation industry who has an exemplary safety record and/or has contributed to safety in ag aviation.

Aaron Peterson

Radium Airspray
Warren, MN

Larsen-Miller Community Service Award

Presented to an individual for outstanding contributions to his or her community.

Pat Stamps

Stamps Spraying Service, Inc.
Panhandle, TX

2007 Award Winners

Most Active Woman

Presented to a woman to recognize her outstanding contribution in the affairs of the aerial application industry or the Association.

Carolyn Baecker

C P Products Company, Inc.
Tempe, TZ

Opal & Bill Binnion Memorial Award

Presented to an individual who contributes to the WNAAG in their efforts to educate the public about aerial application.

Eric Klindt

Tri-State Air Ag
Campbell, MN

Outstanding Service Award

Presented to an individual who provides outstanding service to the commercial agricultural aviation industry or to its Association.

Dusty Dowd

Syracuse Flying Service Inc.
Syracuse, KS

Related Industry Award

Presented to an Allied Industry Member for outstanding contributions to the industry.

Tom Harkin

DuPont Crop Protection
Lakewood, CO

William O. Marsh Safety Award

Presented to an individual for significant achievements in safety, safety education, or an outstanding operational safety program.

Gene Williams

Air Tractor (Retired)
Holliday, TX



Attendees prepare to bid on items in the Live Auction.

Live Auction Winners

Overhauled 985 PWC Piston Engine & Honda GX Horsepower Electric Start

Donated by: Tulsa Aircraft Engines
Highest Bidder: Richard Packer

\$20,000 PWC Maintenance Certificate

Donated by: Pratt & Whitney Canada
Highest Bidder: Chip Kemper

1991 Mack Nurse Truck

Donated by: Kibs Aviation Inc.
Highest Bidder: Dale Thomas

Ram Air Inlet Retrofit Kit

Donated by: Air Tractor, Inc.
Highest Bidder: Mike Bailey

2 Plane Tickets Valued Up to \$1,000

Donated by: Syngenta
Highest Bidder: Dwayne O'Brien

50 CP-06 Swivels

Donated by: CP Products Company & G.O. Christopher
Highest Bidder: Randy Murphree

50 Flat Fan Nozzles (Set 1)

Donated by: CP Products Company, Johnston Aircraft Service, Lane Aviation, Mid-Continent, Pickett Equipment and Sky Tractor Supply
Highest Bidder: Doug Chanay

50 Flat Fan Nozzles (Set 2)

Donated by: CP Products Company
Highest Bidder: Jeff Chorman

Harold Miller Helmet

Highest Bidder: Mike & Al Schiffer

P-51 Mustang Ride

Donated by: Tall Towers Aviation
Highest Bidder: Alan Jones

24 V 50 AMP Jasco 7555T Alternator and J12M24SP Controller

Donated by: S&T Aircraft Accessories
Highest Bidder: Dwayne O'Brien

Fuel Nozzle Maintenance

Donated by: Tennessee Aircraft Co.
Highest Bidder: Dusty Dowd

\$500 Ag-Nav Gift Certificate (1 of 2)

Donated by: Ag-Nav
Highest Bidder: Loyd Good

\$500 Ag-Nav Gift Certificate (2 of 2)

Donated by: Ag-Nav
Highest Bidder: Leonard Felix

\$500 Certificate for a rebuilt kit for a spray motor system

Donated by: Simplex Manufacturing Company
Highest Bidder: Rod Thomas



You can now make nominations for the 2008 NAAA Awards. For more information, award nominations form and past recipients, please visit the NAAA Website at www.agaviation.org/awards.htm.

Topspin 12 Volt Transfer Pump

Donated by: Murray Equipment

Highest Bidder: Dennie Stokes

4 Blade Fan & Demand Vent

Donated by: Transland

Highest Bidder: Matt Crabbe

Electric Brake & 4 Blade Fan Assembly

Donated by: Lane Aviation

Highest Bidder: Randy Murphree

Hal Tucker Print

(Ag Cat working Rice)

Donated by: California AAA

Highest Bidder: Bob Bailey

Kevin Fleming Photo of Allen Chorman spraying sunflowers

Donated by: Allen Chorman & Son, Inc.

Highest Bidder: Dusty Dowd

“Air Tractor” Painting by Kenneth Wyatt

Donated by: New Mexico AAA

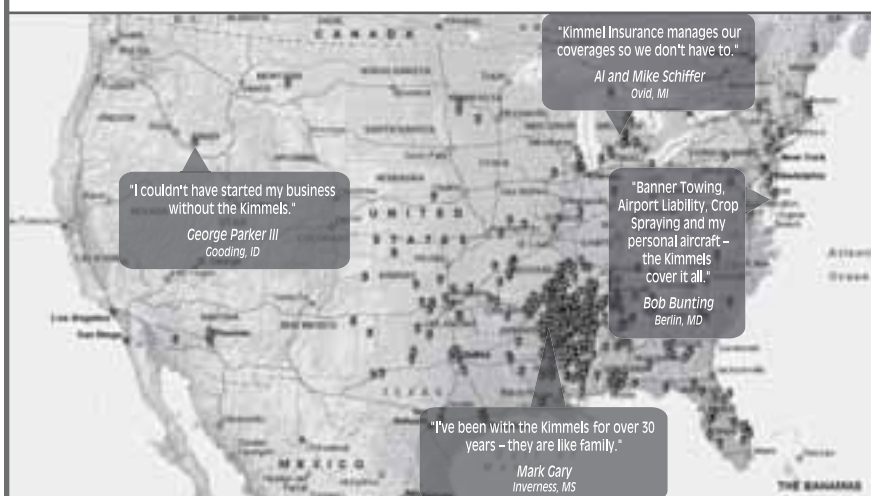
Highest Bidder: Rusty Linderman

Richard DeSpain “Bread of Life” Print

Donated by: Mid-Continent Aircraft Corporation

Highest Bidder: Chip Kemper

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Harold Miller Award – Wayne Handley Course

Each state and regional association is given the opportunity to submit one of their members to be entered into a drawing to receive the Wayne Handley Aerobatics Course. The course is given through the Harold Miller Scholarship, which is through the NAAA Museum Committee. Wayne Handley tailors his program to the needs and wants of the pilot and the focus of his training will instill confidence in the pilot. Wayne will add new moves to the recipient's aerobatic repertoire by going through every type of spin. He will also find weaknesses and work on them until they become strengths. Congratulations to this year's recipient Michael Campbell of Campbell Aviation Inc. in Dutton, MT.

WNAAA Raffle Winners

First Prize – DuPont Crop Protection NASCAR Weekend + \$500 Cash

Lynn Johnson of Johnson Airspray Inc. in Grafton, ND

Second Prize – 2 Day/3 Night Guided Hunt in South Dakota + \$500 Cash

Cindy Harris of Lakeland Dusters, Inc. in Corcoran, CA

Third Prize – Diamond Cuff Bracelet and Matching Earrings

Karen and Ray Edmiston of Aerial Sprayers Inc. in Platteville, CO



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Attendees network and visit with friends at one of the several events at the convention.

2007 NAAA President Rod Thomas thanks attendees for traveling to Reno.



New and low time pilots attend one of two Compass Rose sessions.

Participants are cheered on by other attendees during the NAAA PAC Slot Tournament.

AIRCRAFT FATIGUE

By Sam Rogge, Operator, Jet Stream Ag Aviation, Inc.



Cracked Wing Spar



G-Meter

The PAASS program at the 2006-2007 Colorado AAA convention, as well as an article in the Colorado newsletter titled, "PAASS Program: Aircraft Fatigue in the Agricultural Industry," written by Dusty Dowd really piqued my attention. Both the article and the PAASS presentation emphasized we, as an industry, need to change the way we operate to reduce wear and tear on our aircraft. An excellent suggestion was to install a g-meter. Being aware of the g's you're pulling during normal operation is really just a good start in the right direction. We also must be aware of the load, maneuvering speed, g-limits and how these factors interact and affect the aircraft as we fly.

A good place to start is the design load limits. Normal category aircraft are designed for positive 3.8 g's, utility aircraft go to positive 4.4 g's and acrobatic aircraft go to positive 6.6 g's. The place to check for these limits is the owner's manual or pilot operating hand book (POH). I happen to fly a Cessna Husky, so I'll use it as an example. I expected the aircraft to be certified in the utility category, but to my surprise, the g-limits are listed as positive 3.8 g's and negative 1.52 g's. If you look at 502 POH, you will also find it rated at positive 3.8 g's. So, your first priority is to read your aircraft POH and really know what your aircraft's operating limits are. Now, as a general rule, light aircraft are designed with an ultimate (total failure) load limit that is at least 150 percent above the category design-load limit. For our Cessna, this works out to about positive 5.7 g's before we can expect the wings to come off. But, we can expect the aircraft to be damaged somewhere between normal ops limits and total failure, which brings us to something called yield factor. In the airworthiness directives, this is defined as the load where permanent set begins to take place. In pilot language, this is where a pilot 'bent the airplane,' and it's going to stay that way.

Most pilots that I know are very aware of ultimate load limits, but very few are familiar with yield factor, or where yield factor might come in to play. In general, yield begins at about two thirds of the ultimate load limit. A little math shows yield or permanent set can start right at our positive 3.8g's normal operating limit. One comforting thing is most light aircraft in

the United States are designed to meet an ultimate load factor of at least positive 6.0 g's regardless of category, which puts yield at about positive 4.0 g's. But, be well aware any load exceeding the design limit of your aircraft can result in permanent damage. Each time aluminum is flexed or bent, even from the very first time, it loses strength. Thus, there is a fatigue limit on how long a particular structure can be used before it fails, and this limit is dependent on how much stress the structure is exposed to over time. An aircraft's spar life may be listed as 25,000 hours under normal operating conditions, but exceeding normal limits will increase fatigue damage and reduce the structural life expectancy of your aircraft by an unpredictable amount. It is just like your body. Take good care of it and you can expect 76 years or better. But if you drink, smoke and have a high-cholesterol diet, you can expect some part to fail at some time that is well short of your expectations. The same goes for your aircraft. Expose it to stress factors above the design expectations, and it will fail at some time well short of its expected useful life. So, it makes a lot of sense to change those habits that can reduce your aircraft's operational life. However some things we do may be bad for us, but we just don't know or think it is really that bad. Yield factor may be one of those things we just don't really pay much attention to.

If you look at a flight-envelope diagram, maneuvering speed puts us at a point where full or abrupt control inputs will result in a stall rather than an over 'g' situation. In other words, you do not have the aerodynamic authority to exceed the aircraft's design limits at or below maneuvering speed. A quick look at our Cessna operating limits yields another bit of a surprise. Maneuvering speed at 3,300 pounds gross weight is 117 mph IAS, but at 2,800 pounds gross weight, it drops to 108 mph IAS. Our application speed in this aircraft is 120 mph IAS, which is telling me I can exceed design g-limits of this aircraft at any time during normal applications. Second, speeds above the maneuvering speed allow ever greater aerodynamic authority (the faster you go, the more g-force is available) until you reach

continued on next page



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140	5.41	14.6	28.8
135	4.37	11.9	23.9
130	3.51	9.6	19.8
125	2.80	7.7	16.3
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CP-11TT – 4025 tip, 8° Default Angle

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a point where enough g-force is available to 'pull' the wings off. The problem here is as you get lighter, the lower this air speed is going to be. Thus, the flight envelope is not static as it would appear from the diagrams used to depict them but much more of a dynamic thing that changes with the changing conditions on the aircraft.

This dynamic also works against us during the application process. We all hate to waste time in the turns, and as the airplane gets lighter, we really start cranking it around. Unfortunately, this is precisely where it is easier to over 'g' the aircraft than we realize. One maneuver in particular where this can happen comes to mind, which is an abrupt pull up combined with a hard roll into a turn. To turn an airplane, one wing has to be accelerated up and the other down. When you make an abrupt pull up and roll into the turn, the outside wing will be experiencing more acceleration (g-force) than is experienced in the cockpit or even expressed by a cockpit g-meter. For example, if I make a max 'g' (positive 3.8) pull up coupled with a roll to the right, the left wing will have to have in excess of positive 3.8 g's applied to accelerate the wing into the turn. The result is that I have too many g's over that wing (and possibly bent it) without ever exceeding my aircraft's positive 3.8 g operating limit on the cockpit g-meter. Obviously, there is a rolling g operating limit, but if it is addressed in any ag, or even general aviation POH out there, please let me know.

However, as a general rule of thumb, if you are pulling and rolling at the same time, the maximum 'g' you should apply to the aircraft is about 80 percent of your normal design g-limit. For our Cessna, about three g's is 80 percent of the listed 3.8 g operating limit. The reason for this is all about acceleration.

For example, the wing tip of an aircraft with a 55 foot wingspan rolling at 60 degrees per second is traveling at 19.6 mph. When we do the math,



Digital G-Meter

the force required to accelerate the wing into the turn is 0.9g. So, in our example, with a positive 3.8 g pull up coupled with our turn, the up moving wing would experience positive 4.7g's at the wing tip. Keep in mind, this example is arbitrary for the purpose of demonstration. In the real world, our roll rates are higher, acceleration times are lower and designers use an aerodynamic center to measure the force at about one third the length of the wing rather than the wing tip. I'll forgo the math, but just remember acceleration is a function of time and each time we cut our acceleration time in half, we double the g-force, but if we limit our rolling pull up to 80 percent (positive 3.0 g) of our max operating limit (positive 3.8 g) our up-moving wing will stay within or right at our max operating g-limit. Please note, any hard turn performed while pulling any 'g' value in excess of positive 3.0 g's will result in the outside wing exceeding the normal operating g limit. Doing this on a routine basis is continuously cycling the wing in and out of the area where yield can and does occur. The result of such practice will be early fatigue failure of the wing and possibly early termination of your life cycle as well.

Recommended operational changes are to install a g-meter and avoid over stressing the aircraft. Mark the g-meter at your aircraft's normal operating g-limit and use the 80 percent rule of thumb for your rolling pull up maneuvers. Also remember the aircraft is designed to operate as delivered from the factory. Add on wing tips and even our spray booms, add additional weight and aerodynamic loads that can and do reduce the fatigue life of the wing structure, so thorough annual inspections also are highly recommended. Finally, this article is not intended to scare anyone. Our ag airplanes really are very well designed machines, but trying to save 10-15 seconds in a turn may not be as cost effective or as safe as we think. ✂

AG INDUSTRY LEADER: BILL LAVENDER OF



By Lindsay Barber, NAAA Director of Communications

Bill Lavender has spent a few decades in the aerial application industry as an ag pilot, a writer and a publisher. During a 27-year career of ag flying, Lavender pursued publishing a newspaper about the aerial application industry 20 years ago, which has turned into several publications about aerial application and other subjects.

Lavender did not grow up in the aerial application profession, but he was aware of the industry because a friend's family owned a flying service. It wasn't until he was 20 years old that he became interested in pursuing a career in the industry while living with his friend in southern Georgia. "At that age, I wanted to make money, and I was living with a guy who was making a lot of money as a crop duster—a lot more money than I was making working as an optician. He assured me that there was good money in crop dusting and that I should get my pilot's license and head down to Florida to work for the winter."

Lavender added, "Watching my crop-duster roommate come home with big checks was motivation enough for me to do something different with my life. I started in the ag industry because I was motivated by money, not the love of flying. However, the love of flying came almost immediately after taking my first flight, and I quickly grew to love the industry."

He listened to his roommate and got his pilot's license. "After getting my license, I traveled down to Florida, but it was difficult for me to find work because I didn't have any ag flying experience. Finally, that same year in 1974, I found a seat flying a 235 hp Pawnee in Dawson, GA, six months after earning my commercial license."

The ag spraying business agreed with Lavender, and in 1976, he started his own business, Ag Air Crop Service. He sold the business in 1986, but flew for the new owner until 2001. Lavender stated, "In 2001, I decided that 27 years of ag flying was good enough for me." Today, he flies an A36 Bonanza for AgAir Update business.

When asked about any flying he'd done besides agriculture work, Lavender responded, "I never flew any fire-fighting work because, when I was in the industry, aerial spraying for fire work was not established. I flew mosquito control for the Navy at Kings Bay Naval Base in Georgia from 1985-2001. I also flew mosquito control for four cities in southern Georgia, but when I sold my business, the new owner backed off the city spraying because residents complained when we sprayed. They even complained when we didn't spray."

While still spraying, Lavender also became involved in the publishing business. "In the mid-'80s, I got in to the newspaper-publishing business. At the time, I was a director for the Georgia Agricultural Aviation Association (GAAA) and quarterly, each director took turns writing and sending to everyone in the



Bill Lavender.

state a small newsletter called *AgAir Update*," explained Lavender. "I didn't mind working when my turn came around, and after awhile, I realized it was costing the association money. I began recruiting a few suppliers to help support the cost of the newsletter. I then worked to expand the newsletter to other southern states because there were more suppliers who could help with expenses for the newsletter as advertisers."

Upon the recommendation of a friend in the publishing industry, Lavender obtained the rights

to *AgAir Update* from the GAAA and made the conversion from newsletter to newspaper in 1988. Because he was flying ag part-time during the 1990s, it gave him the opportunity to pursue this venture. "We didn't have a lot of money for the publication, but I used an old Mac computer, and my friend would lay out the newspaper. I don't have any special college degrees, nor attended any journalism classes; I am just a self-trained writer and publisher."

Today, *AgAir Update* has 3,000 subscribers worldwide. The publication is designed and formatted in the Perry, GA office. Lavender has a friend in the same town who owns a Goss Community newspaper printing press and he prints all of Lavender's publications. All of the publications are mailed worldwide from Perry.

Lavender has a staff of four who work for him full-time in the Perry office. He also has two part-time people in Brazil, one in Montana and one in Denver, as well as several other people who assist when help is needed. In regard to writers, Lavender is the only writer for *AgAir Update*, and many people in the industry submit articles for publication, including a few of the columns that always appear, such as "Wing and a Prayer" and Marc Mullis' fire-fighting section, which appears six times per year. Everyone in the office assists in proofing and editing as needed.

According to Brian Rau, chairman of NAAA's Communications and PR Committee and operator of Medina Flying Service in Medina, ND, "*AgAir Update* is an excellent publication that provides information on the ag aviation industry. Its letters

continued on next page

continued from previous page

to the editor section provides an informal means to express thoughts and concerns to the rest of the industry.”

Besides having his successful publication, *AgAir Update*, Lavender also publishes *AirFire & Forestry* in six issues of *AgAir Update*, which is about the fire fighting side of aerial application; *Universal Helicopter*, which is a newspaper for all civil types of helicopters, including tourism and police; and *Abaco Journal Islands Guide*, which is a tourist guide for the Abaco Islands in The Bahamas.

Ten years ago, Lavender broke into the Latin American market with *AgAir Update* when he realized there were no aviation specific publications in that area of the world.



AgAir Update Latinoamerica, which is printed exclusively in both Portuguese and Spanish, features articles that are specific to Latin America, although sometimes Lavender will

have American articles translated if he believes they will be useful to the readers in Latin America. He has several people who work with him in Latin America to help write articles and distribute the publication.

He started the Latin American edition of the newspaper after a Brazilian ag pilot, who read the American version of *AgAir Update*, stopped by for an unannounced visit. According to Lavender, “We became friends, and still are to this day, and he’s one of the two writers in Brazil. When he came to visit me the first time, he offered to show me around Brazil. After visiting one of the South American aerial application trade shows, I decided to start *AgAir Update Latinoamerica*. I made several trips to places in Latin America to continue making contacts and friends. I saw a

need for a publication, and I tried to provide it.”

According to Pat Kornegay, past NAAA president and operator of Sun Valley Dusting Company in Texas’ Rio Grande Valley, “The Latin America publication has a circulation of about 1,000 subscribers, and it continues to grow each year. It is a great publication for Latin American operators, pilots and allied companies. All articles are currently done in both Spanish and Portuguese, and I am one of the translators for the publication. *AgAir Update Latinoamerica* is the only aerial-application publication that reaches all countries in Latin America, and Bill has an agreement with some of the associations there for joint production and promotion of trade shows. Some of the associations also offer *AgAir Update Latinoamerica* as a membership benefit, which is great for the publication.”

When asked what his most rewarding experience has been publishing a newspaper for this industry, Lavender responded, “Having the opportunity to meet people with the same ag aviation interests that I have is the best experience. I can pop up on the other side of the world to write an article, and I’m treated like a long-lost friend, when often I don’t know a whole lot about the person or company I am writing about. It is a humbling experience knowing people worldwide read *AgAir Update*.

“I will never need to use a travel agent. Because of my world travels with *AgAir Update*, the local guys I have visited all introduced me to places where they live that you’ll never find in a vacation guide. I love the camaraderie in this industry.”

Rod Thomas, last year’s NAAA president and operator of Thomas Helicopters in Gooding, ID, stated, “During my travels on behalf of this industry, one thing I could always count on when I arrived at any location was a slap on the back and a “good job” from Bill. Bill’s travel schedule, to keep his finger on the pulse of this industry, is brutal, but I have always found his attitude indestructible. His love for and his passion about this industry is contagious, and it shows in his publication. I consider him a friend of mine and of this industry.”

The biggest change Lavender dealt

with when he stopped spraying and moved to publishing full time was that there was no break in the seasons. “When you’re an ag pilot, you work seven days a week from sunup to sundown, but you know somewhere around the corner, there will be a break. It’s completely different in publishing because the first of the month comes around 12 times a year, which is always our deadline. It is a big change, and it took me a while to get used to the constant deadlines. There really is no downtime.”

When asked what motivates him to write, Lavender responded, “Writing is part of the job in keeping the industry informed, but I do have a unique ‘edge’ in writing about the industry because of my past ag-flying experiences, which help me ask the questions, understand the answers and compose the article.

Lavender’s work in the industry has been noticed, and he’s been rewarded for his efforts. In 1992, he received the NAAA Related Industry Award along with other state association awards over the years. He also received the Falcon Pin in 2002 from that year’s NAAA President Pat Kornegay. This pin is given by the current NAAA President to individuals who, through personal effort and dedication, have made substantial contributions to the agricultural aviation industry and its national association. He was also a “charter” participant in the 1996 Leadership Training Program and served on the NAAA Allied Industry Committee from 1999-2003.

According to Randy Hardy, owner of Hardy Aviation Insurance, “Bill Lavender has been a constant presence in this industry for many years. His newspaper is, without a doubt, a leading source for information to the ag industry and now the fire-fighting industry. I can say this because I know Bill is adamant about working in concert with the NAAA and NAAA’s *Agricultural Aviation* magazine. The NAAA magazine is filled with pertinent information helping its members and even those who are not. *AgAir Update* iterates the pertinent information from the NAAA and adds a personal touch bringing every operator into one big basket.”

Asked what his favorite section of *AgAir Update* is, Hardy responded, “His Ag Airmail has always been a favorite.

Taking on the issue of printing the Wing and a Prayer came with some hesitance from others, but Bill decided it was just the right thing to do, and now, years later, many have come to anticipate and appreciate it. I also enjoy his printing of the 'Special NAAA Convention Show Guide' each year and appreciate this information as an allied member of this industry. With that said, Bill has always understood the need to bring together both NAAA members and non members with one common goal, which is to help the overall industry stay strong, focused, safe and profitable."

NAAA's Executive Director Andrew Moore is also an avid reader of *AgAir Update* and has benefited from the publication. Moore stated, "In many ways, *AgAir Update*, when you compress each issue, is a textbook and a modern history of the aerial application industry. When I first began at NAAA over a decade ago, I did not know much about the people, the technologies and the operations of this industry. Bill's magazine serves as a great learning tool about the many nuances of agricultural aviation. Because of his comprehensive understanding of aerial application and his gift with words, Bill is the perfect person to write the next chapter of this industry's history following up on Mabry Anderson's 1986 book *Low & Slow (An Insider's History of Agricultural Aviation)*."

"Aerial spraying or working in some part of the industry is all I've ever done in my professional career," stated Lavender. "The industry has been good to me and I believe that it is not going anywhere. The industry may reshape itself decades down the road, but ag pilots will always be in business."

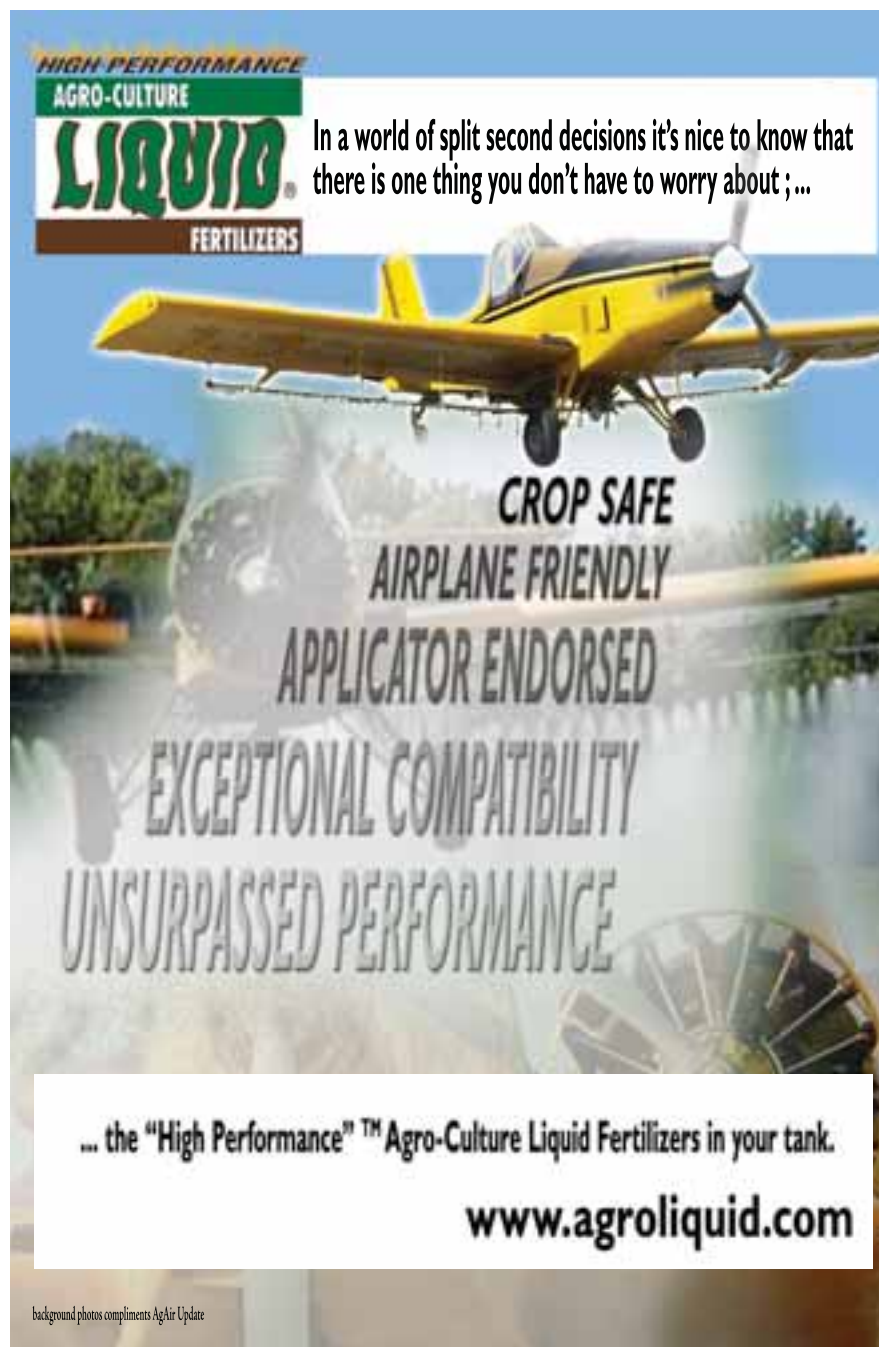
"I am proud of our industry for becoming more professional in the last decade since PAASS has been around. I was fortunate enough to be one of the original PAASS steering committee members. Those of us on that committee knew we were running a huge risk if the program backfired. It was something that concerned each of us. Seeing the success of PAASS and what it's done for ag pilots makes me proud. We got away from the stereotypes and turned a bunch of "cow-boys" into professional pilots. PAASS couldn't have come along at a better time," stated Lavender.

Lavender has been married to his wife Sandy for more than 32 years, and they've worked together through his flying business and on the publications. "When I had the flying business, Sandy did the books, flagging, loading; everything that I needed help with, and when we moved into the newspaper business, she just transitioned right along with me. She is my sounding board, and she keeps me straight. The successes of my life wouldn't have happened without her."

As for his two children, his daughter Casey works at the *AgAir Update* office. She is the proud mom of son, Ne-

van. Lavender's son, Graham, worked with him for several years and spent many summers traveling with his father around the United States writing articles. Graham holds a critical care paramedic license and currently works onboard a life-flight helicopter.

As for the future, Lavender says he's here to stay. "I plan on continuing to write and publish for this industry as long as I'm able. I travel the world-and come and go pretty much whenever I want. I have a comfortable office with a great staff. I don't see changing anything." ✕



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Insurance

BUSINESS INSURANCE – BEYOND INSURING YOUR AIRCRAFT

By NAAA Insurance Committee

Just when you thought hull and liability insurance were all you needed, here comes an article with more insurance considerations. Some are required by law and some are optional, but regardless, keep in mind the concept that insurance is intended to protect your business interest and make sure that regardless of whatever happens your future is protected. Here are some insurance options worth considering.

Commercial Property Insurance – Primarily designed to cover the damage or loss of buildings and contents caused by “acts of god” such as fires, storms and theft of your property. Other occurrences may be covered, but these are the basics. The insurance market will offer three types of coverage packages:

- **Basic Form**, which covers your basic building and contents from most perils
- **Broad Form**, which is inclusive of all the coverages found in the Basic Form, plus coverage for additional perils such as water damage, building collapse, sprinkler leakage and losses arising from damage caused by sleet, ice or the weight of snow.
- **Special Form**, which generally covers a wider range of perils, except those which are specifically excluded such as flood damage, earthquake coverage, war and acts of terrorism, as well as damage from insects or vermin.

Liability Insurance – Most of your exposure comes from damage caused by the aerial application of seeds, fertilizers or chemicals from your aircraft, but what if someone sues your business alleging harm from a statement of liability or slander, advertising liability or a slip and fall accident on your covered property? Liability insurance pays damages for which you are found liable up to the policy limits, as well as

attorney’s fees and other legal defense expenses such as bail bonds. It also pays the medical bills of any people are injured by your business.

Business Auto Insurance – I already insure my personal vehicle so why do I have to buy more insurance? Read your personal auto policy closely! Many personal auto insurance policies exclude coverage if the vehicle involved in the accident is used for business. Buying a business auto policy provides coverage for autos owned by a business. The insurance pays any costs to persons who may get injured (bodily injury) or property you may damage for which your business is legally liable, up to the policy limits. The cars can be covered, as well, and depending on what kind of coverage you buy, the insurance may pay to repair or replace your vehicle because of damage resulting from accidents.

Workers Compensation Insurance – In most states an employer must have workers compensation insurance when there are more than a certain number of employees, varying from one to five and depending on state law. Workers Comp Insurance, as this coverage is typically called, pays for medical care and replaces a portion of lost wages for an employee who is injured in the course of employment, regardless of who was at fault for the injury. When a worker dies as a result of injuries sustained while working, the insurance provides compensation to the employee’s family.

Pollution Coverage – What if your underground fuel farm springs a slow leak or your containment area didn’t contain the materials as well as you thought it would? There would be clean up costs involved, which can be staggering. In the aviation business these types of claims can put the future in jeopardy. Some states maintain a corrective action fund which you can participate in, but these “funds” are generally de-

signed to protect the environment and not the future of your business. The other option would be to secure Pollution Coverage from an authorized insurance company. Due to the nature of your business, you may find this coverage is difficult and sometimes expensive to obtain.

Other Types of Insurance to Consider

Just when you thought we were done, there are more items to consider. Some of these might be part of a general liability policy (such as Host Liquor), and others can be bought as a separate stand alone policy or by adding coverage onto an existing form.

Excess Liability – This is a policy which will go “on top of” your primary or existing general liability policy if you want more coverage.

Employee Practices Liability – In the event that you are sued for wrongful discharge, discrimination or sexual harassment, just to name a few of the common perils, Employee Practices Liability covers your business. Policies are available on an “all risks” basis or a “named perils” basis. The named perils policy will certainly be more restrictive.

Host Liquor Liability – This provides insurance for business functions where liquor or alcohol is served, with or without a charge. In most states the business or “host” serving the alcoholic beverage will be held liable for any injury or damage caused by an intoxicated person.

Employee Benefits

Health and Life Insurance – What happens if you or one of your employees gets sick or the worst possible event, passes on unexpectedly? Health and Life products are benefits not only for the employees of the company, but they are also employee options that help attract the best talent for your organization.

Short and Long Term Disability Plans - Short Term Disability (STD) is insurance that replaces some of your income if an injury or illness prevents you from working. Long Term Disability (LTD) will take over after the

STD benefit runs out. Keep in mind, most of these plans will only pay a portion of your income, not all of it. Many people assume these products are available only for large groups or companies, which is not true. Individuals can qualify for these products as well.

We hope that this was helpful in explaining other insurance options available to you and your business. The bottom line is that there is a lot to think about when you have to wear

the hat of risk manager. You really have three choices when it comes to risk management: 1) insure against it; 2) transfer the risk to someone else; 3) accept it and self insure. When considering the wide range of risks your business is involved with and what to do about them, it's always a good decision to partner with your aviation insurance specialist and construct a solid risk management program to protect the future of your business. Contact your insurance agent today. ✈



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In Memoriam



Gary Hubler

Gary Hubler, 52, from Caldwell, ID was killed at the Reno Air Races on September 12, 2007. He became an ag pilot at the age of 21 and became a partner of Valley Air Service in 1980 with his father. Hubler was also a five-time defending national race champion. Competing in the Formula One class, Hubler flew a Cassutt III M single-seat plane, called Mariah, which was designed for pylon racing and aerial acrobatics. Hubler competed in the top class, reserved for the best pilots and the fastest planes. Being an ag pilot for all of his adult life gave Hubler the low-flying skills needed for racing.

Hubler was married to Debra Jean and they have three children and four granddaughters. Contributions can be made to the War Hawk Air Museum in Idaho in Gary Hubler's name. Visit the website at www.warhawkairmuseum.org.

Robert A. Aukes

Robert (Bob) Aukes was born on April 29, 1929, and he passed away on November 10, 2007. As a young man, he served in the marines during the Korean War. When he returned to Arkansas he started his career in general aviation and had a long career in agricultural aviation. Aukes and his wife, Betty, owned and operated Central Flying Service in England, Arkansas. He served as President of the Arkansas AAA in 1974-1975 and as Director to NAAA during that same time period. In the late '70s, Aukes sold his flying service in Arkansas and bought an operation in Aledo, Illinois until he and his wife retired and moved back to Arkansas.

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NTSB ACCIDENT REPORT

The National Transportation Safety Board (NTSB) investigates all aviation accidents. Accidents that will be reported in the *Agricultural Aviation* magazine are preliminary reports of agricultural aviation accidents, meaning that the probable cause of the accident may not have been determined. If you are interested in learning more about accidents, you can visit the NTSB Website at www.nts.gov/aviation/aviation.htm. Please Note: *Some accidents are not listed here because there has to be a certain severity of an accident before the incident becomes an accident.*

Date/ Description of Accident	City	State	Aircraft Type	N #	Injury
06/30/07 Diverted Attention-Caught gear in crop while spraying around tower	Walkerville	IL	AT-301	5230S	None
07/02/07 Power loss	Marion	IN	S2R-T15	3088K	None
07/05/07 Power loss during spray run	Comfrey	MN	Hughes 369D	500NC	None
07/07/07 Fuel contamination-water in storage tank	El Dorado	TX	AT-402B	712GS	None
07/09/07 Power loss at 200-300' after take-off	Ulysses	KS	Ce A188B	9076R	None
07/11/07 Power loss and forced landing	Tunica	MS	M-18A	4305T	Minor
07/11/07 Power loss during pull-up at end of pass	Alicia	AR	G-164B	8066K	None
07/11/07 Hit power line and crashed-caught on fire	Mercedes	TX	Bell 47 G-2	7878	Minor
07/12/07 Hit power lines and crashed	Wyoming	IL	We 201	9026E	FATAL
07/15/07 Hit tree at end of swath run	Osceola	IN	AT-301	3158W	FATAL
07/15/07 Settled into terrain after take-off	Sheldon	IL	G-164B	8449K	Minor
07/15/07 Circling field-hit vortex-crashed into ground and power line	Lignite	ND	AT-301	8841S	Serious
07/16/07 Hit terrain for unknown reason	Laurel	IA	AT-402A	203DM	FATAL
07/16/07 Collided with trees after hitting thermal	New Hartford	MO	Ce A188A	4412Q	None
07/20/07 Power loss due to suspected bird strike	West Liberty	IA	G-164B	8490K	Minor
07/20/07 Lost control on crosswind take off-possible brake problem	Colby	KS	Ce T188C	2870J	None
07/22/07 Power loss-forced landing	Moline	IL	G-164A	9828	Serious
07/23/07 Unable to remain in flight on downwind take off	Walnut Ridge	AR	G-164B	8402K	Minor
07/30/07 Lost control dodging potholes on take-off	Garwood	TX	Ce A188B	9298R	None
08/01/07 Damaged on landing-reason unknown	Hampton	IA	AT-502B	50877	None

08/02/07 Damaged while maneuvering-reason unknown	Overly	ND	PA25-235	7263Z	None
08/05/07 Hit power line	Vinton	IA	G-164A	48558	Minor
08/08/07 Hit parked cotton wagon while going under power line	Garden City	TX	Ce A188B	4827J	Serious
08/09/07 Could not reach flying speed on take-off	Waterville	WA	DW-1 Eagle	8802E	None
08/09/07 Power loss-forced landing	Hazelton	ND	Snow S2D	16535	None
08/09/07 Fuel exhaustion caused by uneven feeding	Corning	IA	AT-502	9195G	None
08/12/07 Power loss during tailwind take-off	Cooksville	IL	AT-502B	61352	None
08/18/07 Power loss and forced landing-cylinder head failure	Alamosa	CO	AT-301	69WN	Minor
08/20/07 Power loss and forced landing	Cary	MS	AT-402	1027V	Minor
08/23/07 Fuel exhaustion	Vandemere	NC	AT-301	3163T	None
08/24/07 Loss of pitch control	Anoka	MN	Bell 47 G-5	25LB	None
08/25/07 Fuel exhaustion	Soda Springs	ID	PA25-235	8600L	None
08/28/07 Settled into terrain after take-off	Blythe	CA	AT-502B	6003G	None
08/29/07 Unable to remain in flight on downwind take off	Salome	AZ	AT-502B	8521Z	None
09/01/07 Power loss-forced landing	Goshen	NY	G-164A	6578	None
09/12/07 Wind switch caused hard landing	Pueblo	CO	Bell 47G	360SS	None
09/14/07 Power loss	Floydata	TX	AT-602	8522P	None
09/29/07 Power loss-forced landing	Pittsgrove	NJ	G-164A	8761H	None
10/11/07 Caught wing in vegetation along runway on landing	Columbia	LA	AT-602	8521L	None



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Fill out the form below and return it to NAAA to be included in our Operator/Pilot Career Database. Mail to NAAA Career Database, 1005 E Street, SE, Washington, DC 20003; Fax at (202) 546-5726 or e-mail to information@agaviation.org.

NOTE: Applications prior to December 31, 2007 have been deleted. Please resubmit your application for 2008. You must be a member of NAAA to be listed on the website.

Are you a (circle one): Pilot looking for work? Operator looking for a pilot?

Name: _____

Company: _____

Address: _____

City, State Zip: _____

Phone: _____

Fax: _____

Email: _____

Dates Available: _____

Experience/Hours: _____

Total Time: _____

Turbine Hours: _____ Piston Hours: _____ Helicopter Hours: _____

Are you an NAAA member? Yes No

State(s) Licensed in: _____

PAASS Qualified: Yes No

GPS: Yes No Type: _____

Additional Experience or Information: _____

NAAA Calendar Of Events

For a complete list of events, please visit the NAAA Website at www.agaviation.org under the Membership link.

January 2008

9-12

Texas AAA Convention

Corpus Christi, TX –
Omni Corpus Christi Hotel
Texas AAA Office: (512) 476-4405

10-11

Missouri AAA Convention

Cape Girardeau, MO - Drury Lodge
Bruce Benthien: (573) 624-7556

13-15

Arkansas AAA Convention

N. Little Rock, AR - Wyndham Hotel
Ron & Claudetta Harrod:
(501) 376-3233

15

Arizona AAA PAASS

Program (9:00 am)
Stanfield, AZ - Custom Farm Services
Les Davis: (602) 258-9234

21-22

Northeast AAA Convention

Harrisburg, PA - Sheraton, PA
Richard Swiat: (800) 345-3406 x249

21-23

Oklahoma AAA Convention

Oklahoma City, OK -
The Biltmore Hotel
Sandy Wells: (405) 341-3548

22-24

Mississippi AAA Convention

Silver Star - Philadelphia, MS
Will Green Poindexter:
(662) 265-5903

23-25

New Mexico AAA Convention

Ruidoso, NM -
Inn of the Mountain Gods
Gaylon Stamps: (806) 537-5143

28-29

A Montana AA Convention

Great Falls, MT -
Best Western Heritage Inn
Colleen Campbell: (406) 463-2268

28-30

Louisiana AAA Convention

Lafayette, LA - Lafayette Hilton
Ed Krielow: (337) 230-9952

February 2008

4-6

Southeast Aero Cultural Fair

Tallahassee, FL
Linda Minton: (772) 465-0714

7-8

North Carolina AAA Convention

Williamston, NC -
Senator Bob Martin Ag Center
Don Stotesberry, Jr.: (252) 935-5000

15-17

NAAA/NAAREF/WNAAA

Board Meetings
(Open to all NAAA Members)
Leadership Training Program
Arlington, VA - Key Bridge Marriott
NAAA Office: (202) 546-5722
www.agaviation.org

18-20

Nebraska ATA Convention

N. Platte, NE - Sandhills Conv. Center
Judy McDowell: (402) 475-6282

20-23

AgPro Expo Trade Show

Seattle, WA - Sheraton Seattle
www.agproexpo.org/

21-23

Canada AAA Halifax

Nova Scotia -
Marriott Harbourfront Hotel
www.canadianaerialapplicators.com

27-29

Tri-State Aerial Applicators Convention

Morton, MN - Jackpot Junction
Cindy Schreiber-Beck (ND):
(701) 642-5777
Andrea Barber Goebel (SD):
(605) 765-2105
Theresa Ambroz (MN):
(952) 226-5874

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