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Registering High on the Richter Scale

California's Rick Richter assumes the reins as NAAA's 2011 President

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- Meet the 2011 Officers
- Savannah Puts on a Show!
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President's Message

Rick Richter

Ready to Serve

It is indeed a great honor for me to serve as the president of NAAA for 2011. I welcome the duties and responsibilities of the office and will strive to meet the many challenges that threaten the security of our industry.

First, I would like to congratulate our previous officer team, guided by President Brian Rau (N.D.), for an outstanding job well done. Assisting him for 2010 were: Drew Keahey (La.) as Vice President; Tom Harkin (Colo.) as Secretary; and Garrett Lindell (Ill.) as Treasurer; with Jane Barber (S.D.) as your outgoing WNAAA President. Many thanks are in order to these individuals for their efforts of leadership through dedication and commitment to our industry. NAAA is stronger because of their service and the service of those who have gone before them.

As your president, I will continue to build on the strengths of our previous administrations. Standing beside me in these endeavors is a new officer team of Mark Hartz (Ark.) as Vice President; Chip Kemper (Idaho) as Secretary; and Perry Hofer (S.D.) as Treasurer. The WNAAA President this year is Julie Broussard (La.). This is a very diverse and experienced officer team that I am looking forward to working with on the many important issues concerning our industry.

Here we are at the beginning of the second decade of the 21st century, and it just seems like yesterday that we feared an imminent crisis with the dawn of Y2K. Well, it came and went without so much as a whimper, and we're still here and going strong 10 years later. This reminds me of the famous words of Franklin D. Roosevelt, when he said that "the only thing we have to fear is fear itself." With that in mind, as we define our challenges in the beginning of this new decade, let us remember that if we can be proactive and approach our issues of concern to the industry with a positive outlook, we will have greater control over our own destiny, or at the very least shape it in such a way that is favorable or has a more manageable outcome.

Two ongoing issues that will have a significant impact on most of our industry are approaching the forefront this year: the NPDES water permit requirements and the EPA drift proposal to label language. By the time you read this, EPA will have issued its final permit, which is scheduled to go into effect on April 9, 2011. The best possible defense against burdensome regulations such as these is to be a member of NAAA. By standing together as an association, our collective strength is better able to deal with threats to our future and the profitability of our businesses. Many NAAA members have answered the association's call and submitted comments to the agency opposing the EPA's proposed water permit and draft drift label language this past year. We thank you for your advocacy and encourage others to participate in these important legislative/regulatory processes. Other hot topics include the Endangered Species Act (and related buffer zones necessary to comply), along with the placement of wind energy towers and unmarked meteorological towers, to name a few.

In addition to advocacy, ongoing education is crucial to the survival of the industry. NAAA continues to exemplify its professional image with the PAASS Program. Going into its 13th successful year, the program continues to emphasize safety, security and drift mitigation measures. This year's human factors module poses interesting ethical questions and has been a real attention-getter. If you haven't seen a PAASS Program lately, we invite you to do so at a state or regional association convention near you.

As we move into the new decade, let's keep in mind the importance of what we do for a living: helping to provide a safe, abundant and affordable supply of food, fiber and bio-fuel for a growing world population. Though we are highly regulated by those who don't completely understand what we do, let's remember that through education, outreach and a positive attitude, we will be able to clear a path for the next generation of ag pilots to follow in our footsteps. n

Executive Director's Message

Andrew Moore

2010 Rewind and 2011 Outlook: Positive Signs Despite Government Challenges

We've seen a tremendous amount of activity in Washington, D.C., this year—most of it requiring NAAA to play defensive ball. After taking a year to get their players in place and comfortable in their positions, the Obama Administration let loose with a torrent of proposed regulatory initiatives that, if finalized, will result in a number of challenges to the aerial application industry. The most troubling proposed regulatory requirement facing pesticide applicators today has to do with obtaining National Pollutant Discharge Elimination System (NPDES) permits under the Clean Water Act for pesticide applications.

EPA has developed a draft NPDES Pesticide General Permit (PGP) for pesticide applications made to waters of the U.S. as mandated by a decision issued in 2009 by the U.S. Court of Appeals, 6th Circuit. As of this printing, EPA was expected to have finalized the permit with a Court directive that it be enforced no later than April 9, 2011. Permit requirements must be followed for pesticide applications made directly to water or where a discharge will unavoidably reach the water for mosquito applications, forestry applications, aquatic pests and weeds along water ditches. If a certain threshold of acres is reached for these applications in a single year (640 acres for forestry and mosquitoes; 20 linear miles for waterway ditch banks and aquatic pests) a Notice of Intent (NOI) to fall under the permit must be filed with either the EPA or the state agency that has jurisdiction over water quality.

Aerial applicators must file their own NOIs if each of their clients doesn't file an NOI and the total acres conducted for such clients exceeds 640 acres annually or 20 linear miles of waterway ditch banks.

NAAA, in direct comments to EPA, in meetings with top EPA officials and through congressional pressure, is urging the Agency to exempt aerial applicators from these cumbersome permit requirements by informing them of the technologies and stewardship programs that are commonly used in the industry to mitigate the off-target movement of applied materials. NAAA also reiterated the small business nature of the aerial application industry (2.2 aircraft per operations, four total employees) and how the extensive requirements of surveillance, mandated IPM practices and so forth are not feasible for aerial businesses that have hundreds of clients in multiple counties and sometimes different states. Because of these aerial logistics, the permit requirements should be solely required for the entity requesting the application, not the applicator. Legislation has been introduced that would amend federal law that "no permit shall be required for … the use of a pesticide that is registered or otherwise authorized for use under [FIFRA]," but because of partisan bickering a legislative fix is far from certain; it will continue to be pursued, however.

In the meantime, as the April 2011 date approaches it is wise for all aerial applicators to begin to prepare for this permit even if they don't conduct the applications listed under the permit. The Clean Water Act allows for citizens suits against NPDES permit violators. It is expected that activist groups will try to expand the reach of the NPDES PGP to include terrestrial applications that don't currently fall under the permits' requirements. As a result, it is important for applicators to develop and document written policies for the following: aircraft setup, calibration and maintenance; proper handling of pesticides and containers; procedures to avoid misapplication and drift; and procedures documenting spray jobs and meteorological conditions. Each state's permit system may be a little bit different so it is important for applicators to learn about the proposed NPDES permit policies in the states in which application work is conducted.

It is also recommended that applicators use GPS and a meteorological documenting technology that can document the time, geographical coordinates, meteorological conditions and air movement direction for potential evidence indicating that an application was moving away from a water body or sensitive area in event of a citizen suit. One such system is the Aircraft Integrated Meteorological Measurement System (AIMMS). AIMMS is essentially an on-board anemometer that collects weather-related readings each second (or approximately every 200 feet for a moving ag aircraft); syncs those data with the exact latitudinal and longitudinal location of the ag aircraft; and saves that information into the aircraft's GPS system.

NAAA will continue to keep the membership informed of this troublesome issue via *Agricultural Aviation,* the NAAA e-Newsletter, and at the following web-link: *http://agaviation.org/NPDESpermits.htm.*

Drift language for all registered pesticide products was also proposed by EPA over the past year. One of the mandatory statements in the draft drift notice for commercial applications was "do not apply…in a manner…that could cause an adverse effect to people or any other non-target organism or site." NAAA and a number of agricultural interests strongly opposed the EPA draft language, not only because it could lead to an applicator being in violation because he *could* drift—not because he did drift—but also because the language falls outside of the regulatory authority given EPA under FIFRA.

NAAA will continue to fight over the next year and beyond for a less stringent and more reasonable approach to aerial pesticide policy.

FIFRA allows for the registration of a pesticide if "when used in accordance with widespread and commonly recognized practices it will not generally cause an unreasonable adverse effect on humans or the environment." Therefore, according to the statute, label language should state that a level of spray drift that does not cause an unreasonable adverse effect on human health or the environment is permitted under FIFRA. If an application "could cause drift"—which a case could be made that any application "could cause" drift—even if it does not, that is not a "cause [of] an unreasonable adverse effect," hence it is outside of FIFRA's scope. NAAA reiterated these points to EPA in its comments to the Agency. Since EPA's comment period on its drift proposal closed, the Agency has acknowledged the concerns raised with the phrase, "could cause an adverse effect." NAAA has and will continue to push EPA to reward applicators using drift reduction technologies and stewardship programs, rather than pushing penalizing, unnecessary and burdensome drift label language. Education and technology are proven mechanisms that have reduced drift.

NAAA will continue to fight over the next year and beyond for a less stringent and more reasonable approach to aerial pesticide policy so that aerial applicators have a healthy inventory of crop protection products available to do the best possible job for their clients.

In the past, with help from many of you, NAAA has developed several pesticide use surveys. These surveys provide actual use data from aerial applicators showing the average number of acres treated, drift mitigation measures implemented and occupational exposure mitigation measures practiced in the field. On a number of occasions this data has been supplied to the EPA and has countered the Agency's overestimates of pesticide risks attributed to aerial application. Our efforts have preserved the aerial use of crop protection products and prevented aerial use restrictions for many of the products you count on. NAAA will be conducting another pesticide use survey this off-season, so be on the lookout and please complete it when it comes your way. It will make a difference in the products you have available in your plant health arsenal.

NAAA also continues to work on the development of new technologies. NAAA has successfully fought over the past nine years for more than $5.2 million in additional federal research conducted on the testing and development of aerial application technologies at the USDA-ARS aerial application technology research facility in College Station, Texas. These technologies are designed to mitigate drift, make aerial applications more efficacious and result in fuel savings. It is through the development of these technologies and their common usage in the field that we will be able to keep the EPA and other regulatory agencies at bay from promulgating and enforcing overly restrictive application design standards, such as buffer zones. ARS has also stood as an expert for our industry combating claims made that ag aircraft are a possible security threat able to spread chemical or biological weapons. Furthermore, ARS's ability to

produce quantifiable research has been helpful in combating overly inflated risk estimates EPA makes about drift from aerial applications.

Switching to transportation issues, in 2010 the Association successfully inserted language to a bill reauthorizing federal aviation programs that requires the General Accountability Office and the FAA to conduct a study on the effects wind energy related towers are having on the national airspace system. Unfortunately, the bill was not enacted because of non-related disagreements as a result of partisan differences between members of Congress; however, it was a positive step and NAAA will again attempt language authorizing these government studies this year.

Other ongoing challenges facing the aerial application industry include the rampant growth of wind energy towers. South Dakota and Wyoming enacted state laws requiring marking of meteorological towers related to wind energy development. Unfortunately, the FAA has the authority to preempt state requirements for marking and lighting any structure because of their sole authority to regulate the airspace and the federal agency is exercising this authority. NAAA held meetings with the FAA's Office of Chief Counsel to get the agency to take into account the safety concerns these dangerous obstacles pose for low-level aviation and will continue to push the agency on this matter in 2011 and beyond.

All of these government relations issues underscore why it is so important to have a presence in Washington, D.C., representing our industry and why it is so important to support NAAA. Through at least 2012 federal agencies are likely to favor a more robust regulatory approach toward pesticide-related issues; however, as a result of the midterm elections, Congress is likely to provide more scrutiny over what is promulgated by these agencies over the next two years. NAAA will continue to be on the lookout for unnecessary and burdensome regulations. As the growth of the federal debt forces the government to implement new fees and taxes to finance its hungry appetite for programs, NAAA will be there fighting to protect the industry from paying a larger government bill.

Positive Developments

Outside of government challenges, there is a number of positive signs in the media, the farm economy and the global demographic picture that favors the role aerial application plays in modern agricultural production.

A *National Geographic Explorer* documentary on bioterrorism on the National Geographic Channel was broadcast in 2010 that dispelled the notion that agricultural aircraft could be a means for carrying out a bioterrorist attack. National Geographic Television contacted NAAA last January looking for the Association's help on footage for the episode. NAAA provided background information and put the producers in touch with Dr. Clint Hoffmann, lead scientist for aerial application research at the USDA Agricultural Research Service. Much effort was taken explaining that ag aircraft are equipped with hidden ignition switches to prevent theft; that the pressures used to apply products by air would neutralize a biological agent; and that the nozzle systems for ag aircraft are designed to make applied droplets heavy so that they quickly fall to the ground in large droplets, and don't stay suspended for people to inhale.

A camera crew and producers from *National Geographic Explorer* visited Reid Potter and his crew at Lakeland Dusters Aviation Inc. in Corcoran, Calif., in February to shoot aerial application footage. The show summarily dismissed crop dusters as a viable option for a biological terror attack. Being thoroughly vetted and independently verified by an organization as highly regarded as National Geographic provides an added level of credibility that should go a long way toward swaying the skeptics and reassuring the public that ag aircraft are not a viable delivery system for biological weapons.

In 2010, NAAA took the offensive by launching a special towers section of its website, *www.agaviation.org/towers.htm*, which includes a series of ad slicks and radio scripts created for members to use in their media markets to educate farmers and the public about the dangers of unmarked testing towers to pilots of low-flying aircraft and the safety and accessibility concerns associated with wind turbines. Collectively, they illustrate how poor tower marking and improper wind turbine siting put pilots' lives and farmers' livelihood at risk. Each ad closes with the tagline "Let's Be Fair About Sharing The Air" and an invitation to learn more about the impact of wind towers on aviation and agriculture by directing them to our website.

NAAA also launched the totally redesigned www.agaviation.org website in 2010 to raise the profile of the Association and the industry. From the home page forward, the new website is visually appealing and effectively conveys who we are and what we do. The picture it paints vividly portrays the importance and professionalism of the aerial application industry in a matter of seconds.

In the mass media there continues to be a tug-of-war between the message of modern agriculture and those that want to use solely organic methods to meet our food, fiber and bio-fuel needs; I refer to the latter method as retro-agriculture. The modern agriculture method—using biotechnology and the judicious use of agri-chemicals to feed, clothe and energize the world—has made headway in getting its message communicated in a number of larger media outlets as the only way to deliver the needed amount of agricultural products to a growing world population without using more land to do so. Land such as forests, wetlands and other important eco-systems are important carbon sequestering filters that would have to be plowed under to meet global food needs using retro-agricultural methods. I am cautiously optimistic that modern agriculture's message will continue to strengthen in the mass media. There is even work underway for national agricultural groups to collectively pool resources to develop a massive, multi-million dollar public relations campaign to get the word out on the major benefits offered by modern agricultural production.

Lastly, the farm economy looks good and when farmers' pockets are full it tends to work out well for the agricultural aviation industry. Farmgate prices were up 17 percent in 2010 from a year ago. Looking ahead, the economies of Canada, Mexico, China and South Korea are expected to expand another 3–6 percent in 2011 while China's is expected to grow 9 percent! This all fares well for U.S. ag exports since these countries account for more than half of our ag exports. In fact, farm exports in 2011 are expected to exceed 2008's record of $115.3 billion.

The global population is projected to grow by another 2.2 billion people by 2050 from a current population of 6.8 billion. This will result in a continued demand for bio-energy and agricultural products needed to feed and clothe the growing world population using modern agricultural methods, of which aerial application is a vital component.

Many challenges remain, but we can hold our head high because we have had many successes. These successes will provide us the inspiration to continue to work hard for the aerial application industry in 2011 and well beyond. n

WNAAA President's Message

Julie Broussard

Learn to Deal With What is Dealt to You

I am very proud and honored to have been selected as the 2011 WNAAA President. I hope I can do justice to this position. I never thought I would move up to the top position in our Association. My officers will be Kathy Diehl from Kansas as Vice President, Dona Jorden from Texas as Secretary and Ellen Rau from North Dakota as Treasurer. Advice is always welcome, and help is always needed. I know I can count on the women in our Association. The majority are willing to take on any task asked of them.

A few months earlier, I had doubts about what my future would be. Last summer, on July 29, I had a stroke. Although it was slight, it affected my throat, vocal cords, tongue and esophagus. The right side of my entire body is numb to sensations. I can use the hand and leg, but it feels strange. I have no visual impairments, but some of my body doesn't work right. I have taken throat stimulation and it has helped some.

I thank God every day for waking me up but not doing me in. I realized it could have been so very bad and I would not have been able to help in the business or any other thing. You just never know when something will strike you and make you physically impaired. I have always thought maybe a heart attack could happen because that runs in my family, but not a stroke. A lot of people after hearing this say, "Oh, you look so good," but they have no idea how you feel inside. It's not that good, but unless you've had one you cannot possibly relate. The doctors checked me out from head to toe when they finally realized I did have a stroke and not just a sore throat. They ruled out a lot of things that may cause strokes, but to this day they still can't tell me where the clot came from. It may have originated in the brain. At least now I know I have one! Only now I am more susceptible to have another one. Isn't that great news?

In 1988, my husband Lewis and I were awakened by a phone call on Sunday night stating our hanger was on fire. When we got there it was true. The planes were all parked in the hanger, right where the arsonist started the blaze. He cut a hole in the wall, drained the fuel and threw a match. It was unbelievable that anyone could be so vicious. Some people have no hearts. Well, this plan failed because we came back better and bigger with the help of our customers and friends. Some of our farmers paid in advance so we could get back on our feet quickly. It was May and the planting season had just begun. In a week's time Lewis had replaced most of the planes and we were back to work full speed. Lewis was not going to leave our farmers in a bind.

In 1997, Lewis had an aneurysm on the back of his heart and needed surgery immediately. He decided to stop flying ag after that but still has fun flying his seaplane. He manages during the season and does all the mechanic work in winter or when needed. I still do the office work, scheduling, cooking and running around.

Now it's my turn to recover. The children have given me the 5th degree about taking care of myself so for Thanksgiving we went to my son and daughter-in law's. I gave them this holiday and we'll see about the rest. We've told them we can't sit and do nothing; that's not us.

We went to a funeral recently. A cousin was burying her 20-year-old son who had been killed in Afghanistan on Oct. 24, 2010, serving our country. He was so young and my heart broke to see his mother, father and brother hurting. When I think about this I realize my problems are small. We will deal with this just like we have handled all the other events in our lives.

The WNAAA is an organization that helps women get together and work hard for the industry. The women that work side by side in agricultural businesses need our congratulations for the accomplishments they have achieved. They should be recognized by their states for all they do as stakeholders in this business. n

Washington Report

Coming Soon: EPA's Pesticide NPDES General Permit

Time is running out for the Environmental Protection Agency (EPA) to finalize and implement its National Pollutant Discharge Elimination System (NPDES) pesticide general permit. *(Editor's note: EPA hadn't yet published its final NPDES permit (PGP) when this article was written.)* The permit will apply to pesticide applications made directly to water or where pesticides will unavoidably reach water when applications are made to (1) control mosquitoes and other aquatic nuisance insects; (2) control aquatic weeds and algae; (3) control insects in forest canopies; or (4) control invasive fish or other nuisance animals. With a court deadline only three months away, EPA is under the gun to finalize its PGP as soon as possible for the six states it regulates (N.H., N.M., Idaho, Alaska, Okla., Mass.), and to complete the review of the PGPs being developed by the remaining 44 states. By April 9, 2011, all of these permits are to be "fully implemented" and you and thousands of other regulated entities across the country will be expected to sort out your responsibilities and respond accordingly. EPA is the first to admit that this is a tough challenge.

Who will be affected: The PGPs add Clean Water Act (CWA) requirements and legal risks on top of those required by Federal Insecticide, Fungicide & Rodenticide Act (FIFRA) product labels. Most of the burden will fall on those municipalities, state and federal agencies, or private organizations that exert decision-making or financial control over pesticide applications for the control of pests in, over or near rivers, lakes, swamps, irrigation and drainage canals, forests and other areas where water bodies or their conveyances are present. At this time it is unclear how the PGP requirements will distinguish between such decision makers and for-hire aerial applicators. A remaining question is to what extent farmers will be affected by the PGP.

State-developed PGPs must earn EPA's approval, but it's clear from the drafts now available that they will vary considerably in their design. This will no doubt create a smorgasbord of requirements that NAAA members will have to deal with as they service clients across state lines.

Irrigation ditchbank weed control is one of the categories subject to CWA compliance requirements under the PGP. For the most part this will affect those irrigation districts and water management districts that provide the water supplies. But EPA intends the PGP to also cover circumstances where farmers (or their for-hire applicators) maintain pest control on their farms (e.g., insect control for livestock, or weed control in creeks or on ditchbanks carrying irrigation water within the boundaries of their farms). CWA protections (e.g., PGP coverage) for such pest control treatments would be automatically granted by EPA with no further compliance by the farmer than following the FIFRA label and proper equipment/pesticide handling. But if the annual treatment area thresholds of EPA's PGP are exceeded, then Notice of Intent (NOI) submission, Integrated Pest Management (IPM), monitoring, annual reporting and other burdensome requirements kick in.

The burdens will vary: Until we see EPA's final permit we won't know the full story as to how much the Agency listened to broad public and Congressional concerns and fixed the problems of its draft permit. NAAA filed extensive comments in which we identified our industry's concerns and made numerous specific recommendations for ways to improve the final version. We focused on: (a) the extremely low annual treatment thresholds that would trigger the full requirements of the PGP. First among these would be to

submit, a year or more in advance, the details of anticipated client contracts, specific areas to be treated and water bodies present, pesticide usage and other data in a Notice of Intent (NOI) to be filed with regulators; (b) "joint and several" sharing of legal vulnerability between client agencies and all subcontractors; (c) development and compliance with detailed Pesticide Discharge Management Plans detailing all aspects of pesticide handling and use; (d) extensive performance monitoring and recordkeeping; and (e) submission of annual and possibly other reports.

Another wild card is the potential for additional requirements coming from the U.S. Fish & Wildlife Service or the National Marine Fisheries Service (Services) to satisfy the Endangered Species Act (ESA). Under the ESA's consultation requirements, EPA and the Services must consider and address specific protections for endangered or threatened species and their critical habitat. Although EPA requested formal ESA consultation in July, the Services didn't agree to consultation until Oct. 14. Consultation could take three to four months, and the Services could add ESA-specific requirements to EPA's PGP either before or after its publication.

In the final analysis, the burdens of the PGP will vary considerably among pesticide users. All federal and state government agencies with pest control functions, mosquito control districts, irrigation or weed control districts, or similar pest control districts will be required to comply with the full array of requirements, regardless of the size of annually treated acreage. "Others" with pest control functions (utilities, communities, housing developments, recreational organizations, farmers, etc.) could be covered automatically unless they exceed annual treatment acreage thresholds. EPA is planning to increase the thresholds in the final permit to increase the percentage of operators that are automatically covered, reducing the overall burden and cost of the PGP.

Legislation has been introduced to reestablish the primacy of FIFRA regulations and prohibit the requirement of permits for pesticide applications. The recent national election has changed the membership and priorities of Congress considerably, and it's too soon to determine how far such legislation will go.

What states are doing: State-developed PGPs must earn EPA's approval, but it's clear from the drafts now available that they will vary considerably in their design. Some states like Nebraska have taken a minimalist approach, preferring a "permit by rule" design that, if approved by EPA, would satisfy the Clean Water Act (CWA) mostly by compliance with the FIFRA label. Other states are developing more complex PGPs. Florida's draft permit would grant automatic coverage to homeowners, aerial applicators and others except certain large state or municipal agencies that will need to complete Integrated Pest Management (IPM) programs, Pesticide Discharge Management Plans (PDMPs), conduct monitoring and adverse incident assessments, and implement other performance and recordkeeping requirements similar to the requirements of EPA's PGP. Under California's PGP, on the other hand, the permit requirements would apply to all. To get coverage under California's PGP, operators will have to submit documents and reports, pay a permit fee, comply with the PGP and keep extensive records. Other state draft permits that we've seen fall somewhere between these examples. This will no doubt create a smorgasbord of requirements that NAAA members will have to deal with as they service clients across

state lines. Time is short and it's not clear if states will complete their work before the deadline.

Possible legislative fixes: Both Democrats and Republicans in Congress gave EPA Administrator Lisa Jackson an earful of concerns about EPA's activities and especially the NPDES permit at a September 2010 hearing of the Senate Agriculture Committee. She acknowledged a credibility problem, but unless the court's 2009 decision is overturned by Congress, the PGP and its CWA requirements will soon be law. Legislation has been introduced in both the House and Senate to reestablish the primacy of FIFRA regulations and prohibit the requirement of permits for pesticide applications. The recent national election has changed the membership and priorities of Congress considerably, and it's too soon to determine how far such legislation will go. While there's definitely a strong anti-EPA sentiment among many in Congress, passage and enactment of this legislation by the President is far from certain.

What you should anticipate: NAAA has been actively engaged throughout EPA's PGP development process and will continue to be. Even if you don't make the applications directly covered by these permits, it is wise that aerial applicators pay close attention to these new requirements. At the least, aerial applicators will be required to use and document best management practices. Thus, it will be important for applicators to develop and document with written policies and compliance records the following:

- aircraft setup, calibration and maintenance;
- proper storage and handling of pesticides and containers;
- procedures to avoid spills and pesticide misapplication;
- methods and technologies to limit spray drift;
- procedures for documenting spray jobs, pesticides used and meteorological conditions.

Even if you don't make the applications directly covered by these permits, it is wise to pay close attention to these new requirements. At the least, aerial applicators will be required to use and document best management practices.

It is also recommended that applicators use GPS and a meteorological documenting technology that can document the time, geographical coordinates, meteorological conditions and air movement direction for potential evidence indicating that an application was moving away from a water body or sensitive area in the event of a citizen suit. One such system is the Aircraft Integrated Meteorological Measurement System (AIMMS). AIMMS is essentially an on-board anemometer that collects weather-related readings each second (or approximately every 200 feet for a moving ag aircraft); syncs those data with the exact latitudinal and longitudinal location of the ag aircraft; and saves that information into the aircraft's GPS system.

Since each state's permit system will be different, it's important for aerial applicators to learn about the NPDES permit policies for each state in which their application work will take place. The NAAA website [http://agaviation.org/NPDESpermits.htm] will provide updated links to state PGPs as they are developed and finalized. Through this magazine, e-Newsletters and the NAAA website, we'll continue to provide up-to-date information to help our industry prepare for and comply with the coming regulations. Check with us frequently during these final weeks before the court's April 9 deadline, and afterwards during implementation, for further information to answer your questions. n

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Dr. John Thorne is Senior Policy Advisor for Crowell & Moring LLP, a D.C.-based interAvAvnational law firm. He represent clients, including NAAA, on both political and technical aspects of a wide range of regulatory and legislative issues related to agriculture, agribusiness, food processing and the environment before EPA, USDA and Congress. Much of his expertise is related to water and air quality policy related to crop protection, fertilizer use and livestock production, but he has also represented clients on homeland security matters, tariff reduction and appropriations legislation.

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You Tube

Rick Richter
NAAA President

Richter Aviation Inc.
Maxwell, Calif.

Foreground: New NAAA President Rick Richter stands on the airstrip outside of Richter Aviation's hangar in Maxwell, Calif. Background: Richter leans against one of his Ag-Cats. Richter Aviation has three turbine and one piston-powered Ag-Cat.

Registering High on the Richter Scale

California's Rick Richter Assumes the Reins as NAAA's 2011 President

By Jay Calleja
Manager of Communications

"Hey, you on the end, pick up the pace! We've got five more boxes of bags to stuff."

Rick Richter is standing at the end of a long folding table in the back of the mostly empty Convention Hall A inside the Savannah International Trade & Convention Center. It's cold inside the hall because a large door is open, and it's chilly and gusty outside. Several stacks of inserts are laid out in assembly-line fashion across two folding tables, and a steady stream of partially filled registration bags is heading Richter's way. He picks up a couple of inserts, a magnetic cling and a set of "Spray like you mean it!" post-it notes and tosses them into a bag. He does this repetitively for over an hour at least. Rick Richter has accidentally wandered into a shiver shop.

It's Sunday, Dec. 5, one day before NAAA's 2010 Convention officially begins, and a little while earlier the owner of Richter Aviation had wandered over to the registration area to say hello while NAAA's staff was setting up shop. He made the innocent mistake of asking if there was anything he could do to help.

We've got some people in the back stuffing registration bags. You can give them a hand if you want!

Richter cheerfully agreed. Thousands of inserts and multiple hundreds of bags later, NAAA's president-to-be was still feeling cheerful. *If this is the worst thing I have to do as president, then this gig isn't going to be half bad,* he may have been thinking to himself. He was officially elected NAAA's 2011 President a few hours later at the Association's Board Meeting.

The book on Rick Richter is that he is willing to do whatever needs to be done to support the aerial application industry, no matter how big or how small. "Rick is just one of those guys you can always count on," said Terry Gage, President of the California Agricultural Aircraft Association (CAAA). "Rick is always willing to support the industry in any way he can."

Gage has known Richter for more than 10 years. They have worked closely together on programs and issues of interest to California's aerial applicators.

Richter has been an ag pilot for 32 years and an operator since 1983. He and his wife Brenda own Richter Aviation Inc. in Maxwell, Calif. They have a fleet of four Ag-Cats that seeded more than 33,000 acres of rice last year. They also treat alfalfa, almonds and wheat. Rick's youngest, Nick, 25, just finished his first season as a pilot for Richter Aviation and is one of two full-time employees. The company employs 12–14 people during the busy season, from April to August.

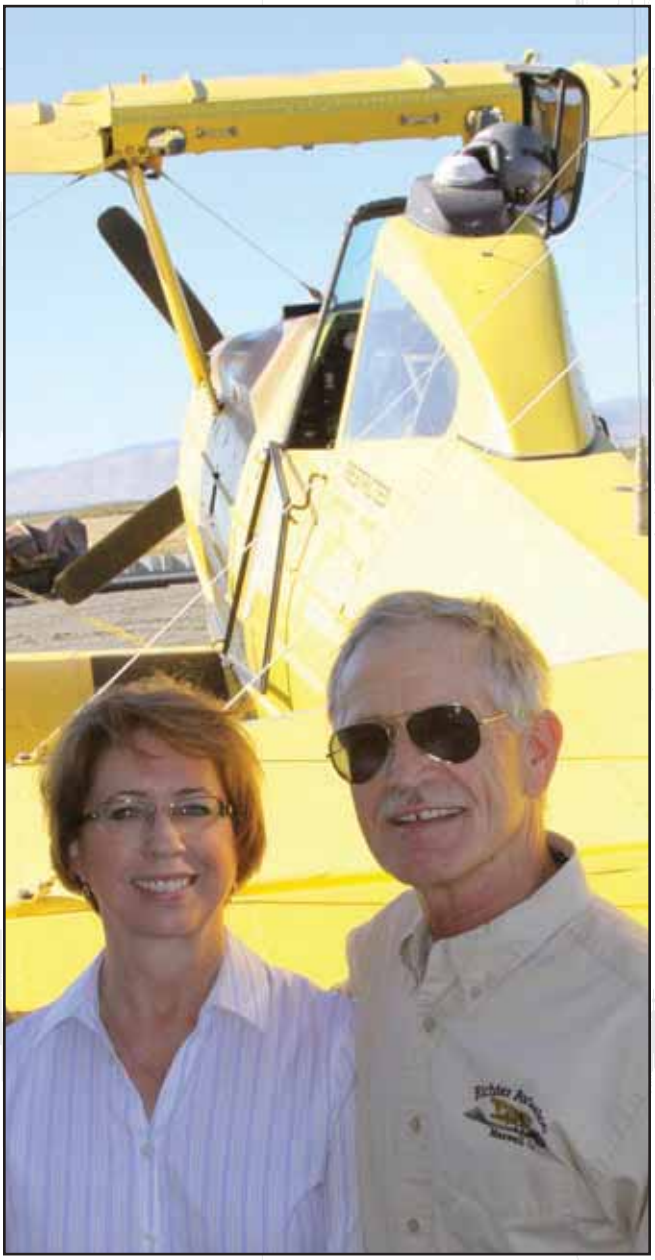
Rick and Brenda also farm 450 acres of rice of their own. Of that, 300 acres are adjacent to their hangar. Another 35 acres are on Richter's ranch. Nick farms that field. Seventy-five percent of Rick's time is devoted to aerial application, 20 percent to farming and 5 percent to ground application. "Aerial application comes first," he said. "It's what we started with, and it will always be No. 1."

A Rapid Ascent

Similar to another famous officeholder, Richter's ascent to the NAAA presidency has been a rapid one. Even though he has only served on NAAA's Board since 2008, he has been an officer in two of his three years (2008, 2009 and 2011) on the Board.

Unlike a lot of associations, NAAA's officer team changes completely from one year to the next. Instead of everyone sliding up a slot, four new officers have to be chosen each year, not just one. Considering that criteria, résumé and reputation tend to trump tenure, and Richter has stellar credentials in both of those respects.

He completed NAAA's Leadership Training Program in 2002. He has served in various leadership roles within CAAA, including Chairman in 2006–2007. He joined the NAAA Board as the Director representing CAAA in 2008. Richter became NAAA's Vice President in 2009 under the Chanay Administration and has served on several NAAA



Rick met his future wife Brenda in 1979, the same year he became a full-fledged ag pilot. The couple have been partners ever since. "She's everything. She's what keeps our business together," Rick said.

LIKE FATHER, LIKE SON
Rick and Brenda Richter's youngest child, Nick, 25, is Richter Aviation's newest pilot. Nick finished his first season flying for Rick in 2010 and is one of two full-time employees. He also farms 35 acres of rice on the Richters' ranch in Maxwell, Calif.

committees, including Research & Technology, Budget & Finance, Government Relations and the Convention Committee. His term as California's Director expired at the end of 2009, so he was not on NAAA's Board last year.

Gone but not forgotten. Doug Chanay, who headed up NAAA's Nominating Committee, asked Richter if he would consider running for NAAA President in 2011. "When I was approached by Doug I was very humbled. It was just an honor that I couldn't walk away from," Richter said. "In this business it's probably the highest honor anyone can give to his peers. And to be the voice of the aerial application industry for the entire nation, it would be the pinnacle of my career. It goes with a lot of responsibility, but also with a lot of power because people are going to listen, because you can go out and espouse the great benefits of aerial application to some very important people in this country."

The NAAA President is asked to speak at a lot of state and regional conventions, and as vice president Richter had stepped in for Chanay on a couple of occasions when scheduling conflicts arose. They were dress rehearsals of sorts. "What it did for me was allow me to get a small taste of what it would be like to be the president," Richter said. "I was there under Doug and I saw everything that it took to be the president of this association. So it was an eye-opening experience."

Chanay said the Nominating Committee considered Richter's being from California an asset because he has had to contend with many of the same environmental issues at the state level that NAAA is dealing with now on a national level.

"Government relations is probably one of the biggies for me. The issues go on and on," Richter said. Two big issues NAAA has been grappling with are the new NPDES Pesticide General Permit requirements and the difficulties facing agriculture under the Endangered Species Act (ESA).

"Agricultural buffers are just putting us out of business. I see those as huge impacts."

Richter and CAAA have already had to contend with buffer restrictions at the state level. One example was Assembly Bill 622, a bill calling for buffer zones of up to three miles from congested areas or schools throughout the state. "If you added up all that acreage, there wouldn't be a whole lot of land left for farming," Richter said.

CAAA invited legislators and regulators to Farm Air, just north of Sacramento. Jason Colquhoun, a helicopter applicator in Southern California, produced a short video that explained "what we do and why we do it and how professional we are when we do it," Richter said. "And he put the faces and the personal touch to the film so that it showed that we're just normal, everyday people like they are, only we're professionals in what we do.

"A lot of them have that misconception that you're out there spreading poisons at 200 feet flying over all these homes and environmentally sensitive areas, and it's just not what we do. So we educated them, basically, on the job that we do day in and day out to provide a safe and reliable food source for the world. And it made a big difference. The bill didn't even get through committee."

The buffer legislation came back once since then. "We've had to battle it again, but there are issues like this all the time out here in California."

From a persuasion standpoint, teaching those legislators and regulators about agricultural aviation is the most satisfying experience Richter has ever had. About 15 people showed up for the workshop. "It just made me feel good," he said. "To get those people to come out from the city and to change their opinion or their focus, we enlightened them and we educated them, and I think that's what a lot of this is about."

Family Ties

Even as an adolescent Rick was interested in being a crop duster. Rick's father was a dairyman. Rick worked on a dairy farm in Maxwell, where he grew up. He went to college and got a B.S. in general agriculture. "I was always interested in farming. It's just that when I got out of college it was too hard to enter farming, and I had learned how to fly while I was in college, so I just took that skill that I had learned and went to work for my cousin in 1976 and I just got hooked on crop dusting then."

Rick and Brenda met in 1979, the same year he started ag flying. It was a partnership built to last. "She's everything," Rick said. "She's what keeps our business together. She does all the books, and in the springtime she takes all the orders and runs the office with the help of one other staff person … She knows the business inside and out."

Brenda's conscientiousness on the ground has paid off for Rick in the air. He has never had an accident in 31 years of flying. "I've had engine failures, and I've always managed to get 'em down on either a paved road or a dirt road. I've been very lucky" said Richter.

With Nick's entry into the family business, Rick's roots in the aerial application industry are deepening, but his ties to the community of Maxwell, Calif., run even deeper. His great grandfather, Charles Richter, emigrated from Germany in 1875. Rick is the fourth generation of Richters to live on the ranch where he makes his home. The home Charles Richter lived in when he came to America still stands about a quarter mile from Rick's house. "There's a lot of history here," he said. "Nick will be the fifth generation, and that's my goal to see him stay with it and get in this industry and stay safe and provide this service for the local community."

Besides Nick, the Richters have two grown daughters, Jessica and Jenilee, a two-year-old grandson named Luke and a second grandchild due this summer.

Hopes, Concerns and Goals for Future

NAAA has done a tremendous amount of good for all aerial applicators and yet only a fraction of them are members. That is a concern of Richter's.

"There are a lot of things that I see as challenges to our industry," he said. "What stands out to me is the membership. We're less than 800 of 1,600 operators and less than 500 of 1,600 pilots. I think we need to up our numbers to be more credible, and it's a big concern to me."

"You've got to get them into the fold somehow," he added. "We can be examples for the ones that can't or haven't been members. They should be able to look up to us and say, 'I want to be like him,' and I feel that the future of this industry is a big part of that—belonging to a group that speaks one voice across the whole country."

Mentoring new pilots gives him encouragement for the future. Richter saw that firsthand this year when he brought his son Nick on board. "It gives me a lot of satisfaction to see him flying an airplane and doing what I've been doing for 30 years. It's my hope that he does it safely, and I'm going to do all I can to make sure that happens. So I'm just trying to create a positive example for him to follow. I see it happening everywhere. In all the states, older operators like myself are taking it upon themselves to bring somebody into the business. That gives me hope for our future."

In one of his final acts, outgoing NAAA President Brian Rau introduced Rick Richter as NAAA's incoming president at the 2010 NAAA Convention's Farewell Banquet.

There's hope for the present, too, with a thoughtful, competent, decent guy like Richter at the helm of the Association. "I think Rick will handle himself very professionally. He'll be an asset to NAAA," Chanay said.

"I'm looking forward to the challenge," Richter said. "We've got a great group to work with. It's going to be exciting and rewarding, and I'm just looking forward to working for the Association in 2011." n

2011 Officer Spotlight

Speaking Straight From the Hartz

Mark Hartz, NAAA Vice President
Grand Prairie Dusters Inc., Almyra, Ark.

Aircraft: Ayres Thrush 510 gal. with a PT6-65 engine
Chief spray crops: Rice, wheat, soybeans and corn

"I just knew from an early age that I was going to be a crop duster," Hartz said.

Please describe your company.

My company is a two-airplane operation that I co-own with my partner Scott Goetz. We have been in business for 22 years. We operate off of a municipal airport and have the added responsibility of managing the airport. We are mainly a rice operation with wheat, soybeans and corn also in the mix.

How did you get into the industry?

Having grown up on a farm one of my earliest memories is the sound of a 600 horsepower AG-Cat flying past my window spraying the rice field next to our house. As I got older and being cheap labor for my dad, I would flag for the airplanes as they sprayed our crops. I remember those old Ag-Cats, with just a Lilly canopy and no windows/doors going past me and when they would bank away at the end of the field being able to see the pilot's feet on the rudder pedals. Well, I just thought that was the coolest thing! That is a vivid image that remains with me to this day. I just knew from an early age that I was going to be a crop duster or as we are now known, a professional aerial applicator.

Why did you volunteer to serve as NAAA's Vice President?

Having served on the NAAA board and also having served as NAAA treasurer previously I am well acquainted with the need for there to be a strong voice for our industry. With many family obligations now past me, I am able to afford the time to once again try and be of service to the industry that has fed my family and me for all these many years.

What other types of volunteer work have you done?

I have also served my state association for many years as a board member including serving in all officer positions.

What have you gotten out of those experiences?

I have seen that one person can make a difference. I have also seen that a great number of people can make a really big difference. This is personified by the board, staff, and members of the NAAA. I am convinced that without our association there would be no aerial application industry. I think we would have long since been regulated out of business.

Why do you think volunteering is important?

I think volunteering is important because this walk through life is free to no one. I think you should give back something for being allowed to exist on this planet. Volunteering to work to maintain our industry as a viable and honorable profession is a cause I feel most comfortable with to give of my time.

Is there an issue of particular concern to you that impacts the industry and/or NAAA?

There are several. The most immediate is the NPDES permitting requirement is that, if it is allowed to stand, will have dire consequences for our industry. From not allowing us to make timely applications, which is one of the hallmarks of this industry, to making us even more susceptible to lawsuits, the price of any applications, not just aerial, will increase dramatically. Another issue of concern is those events either taking farmland out of production or hindering it. An example is the ever growing trend of wind generated electricity and urbanization of productive farmlands. Other issues are out there that have yet come to the forefront but still pose a threat to our industry, which is why it is so important that we have a strong association such as the NAAA to always be looking out for our interests.

What gives you encouragement and hope for the future?

There are many companies that supply our industry with the products and services that we need to make our operations go. Huge investments on their part have been made to keep their products at the cutting edge of technology. I don't see any of those companies backing away from the market place. This means to me they are confident that we in the aerial application industry are still going to be around for some time to come. While we all must have that same confidence it is reassuring to see that our allied industries have that confidence in us as well.

Can you share one good piece of advice that you received or learned from experience that has struck with you over the years?

During our second year in business, we had a hangar fire in which my airplane was destroyed. Distraught with worries about rebuilding the business, insurance issues and how to deal with the devastation, I wasn't sleeping well at night. One night I had a dream that the bank had taken everything, even the clothes on my back. I saw myself walking down the road with nothing more than an old wooden barrel around me with leather straps to hold it up. I woke up from that dream quite amused and realized they can take everything you have but they can't kill you—or at least they're not supposed to. After that night I never lost sleep worrying about things that are best left at the airstrip. We have scant few hours at night to recharge our personal batteries and if you worrying you aren't resting. So leave the business at the business and when at home, be there for the family and for you. n

Chip Shots

Charles (Chip) Kemper Jr., NAAA Secretary

Queen Bee Air Specialties Inc., Rigby, Idaho

Aircraft: 10 AT-802s for firefighting
Chief spray crops: N/A

Please describe your company.

I am the president and owner (jointly with my wife Mary) of Queen Bee Air Specialties Inc. in Rigby, Idaho. I have been the managing officer in the company for 10 years. While we no longer perform aerial application for local growers, we have a long history in that area. We employ up to 35 people involved in aerial firefighting, aircraft sales, parts distribution and aviation maintenance. We are the dealer for Air Tractor Aircraft for the Northwest U.S., the Dakotas and all of Canada.

How did you get into the industry?

I was born in Dekalb, Ill., and lived in Kansas City, Kan., and San Jose, Calif., before moving to Idaho Falls, Idaho, in 1977. My parents had purchased Queen Bee Air Specialties in Rigby, Idaho, at the time. I assisted my family with the business while I was completing my education. In 1982 I graduated from Idaho State University Vo-Tech with a degree in aviation maintenance. I graduated from Plymouth State College in New Hampshire in 1986 with a B.S. in business administration. From there, I earned my commercial pilot certificate and an Air Transport Pilot Certificate. I am an IA and an A&P, and I am a BLM fire and aviation certified trainer for Single Engine Air Tanker Operations. We have 10 AT-802s for aerial firefighting, so we do a lot of contract work for the Bureau of Land Management.

Why did you volunteer to serve as NAAA's Secretary?

I feel that the work of the NAAA is very important.

What other types of volunteer work have you done?

I served in all board and executive level positions in the Idaho Agricultural Aviation Association. I chaired the safety committee of the National Single Engine Air Tanker Association and was appointed by the Governor of Idaho to serve on the Idaho Transportation Departments Aeronautics Board.

What have you gotten out of those experiences?

I have experienced the frustrations and a sense of achievement when a satisfactory outcome is achieved on important matters. I have met many wonderful people.

Is there an issue of particular concern to you that impacts the industry and/or NAAA?

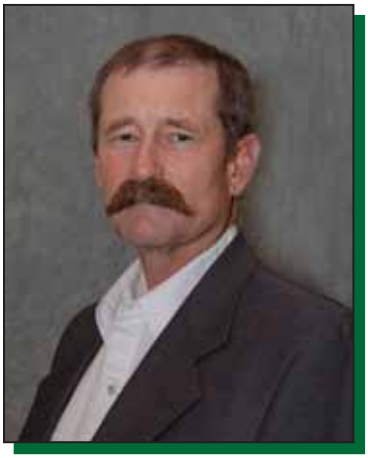
Meteorological towers and EPA regulations are very important challenges.

What gives you encouragement and hope for the future?

Agriculture, while cyclical, has always remained a vital and vibrant industry.

Can you share one good piece of advice that you received or learned from experience that has struck with you over the years?

Safety and training always pay off in a big way in the end. n



Perry Hofer Reporting for Duty

Perry Hofer, NAAA Treasurer
Doland Aerial Spraying, Doland, S.D.

Aircraft: Garrett-powered S2R Thrush
Chief spray crops: Winter wheat, spring wheat, corn, soybeans, pasture and rangeland control

Please describe your company.

My wife Linda and I own and operate Doland Aerial Spraying and have been in business the past 15 seasons. Prior to that, I worked for an operator in the eastern part of South Dakota. We spray winter wheat, spring wheat, corn, soybeans, and pasture and rangeland.

My airstrip and hangar are right here on the same farm I grew up on. My brother and I run a 4,000-acre crop operation—corn, soybeans, winter wheat, spring wheat that we raise—and my sons Nik, Bryant and Michel help with the farming operation. Otherwise, I wouldn't be able to spray in the summertime. And we also run 250 stock cows, so everybody keeps pretty busy here. [The Hofers also have a three-year-old son named Matthew.]

How did you get into the industry?

I started taking flying lessons 30 years ago. I drove semi-trucks all across the United States for five winters because I was farming in the summer. That's how I paid for my private, instrument and commercial lessons. I got my commercial in 1985. I hauled everything you can think of. Food products, clothing products—heck, Playboy magazines from Chicago to the West Coast one time too.

I'm fortunate that I am still able to work closely with the spray pilot that was my mentor, Martin Beving, of Aberdeen, S.D. We often trade work back and forth. … For those first two or three years, he took the tough fields, and I can honestly say the reason I'm alive today is because of his guidance and his mentoring. That's so important.

Why did you volunteer to serve as NAAA's Treasurer?

I feel that in your time on any board that you need to contribute as much as you can, and if they feel that you are competent enough to do it and they ask to, then you owe it to your industry to try to give back to your industry.

What other types of volunteer work have you done?

I served as SDAA president for five years, vice president for one year. I have also been a president of the Farmers Union Oil Co. in Red Field and Doland, S.D. It's a fuel distribution company that offers chemicals, crop input products and ground application services. I was on the board of the cooperative that owned the company's assets, but that was a long time ago.

What have you gotten out of those experiences?

Oh, boy. I'd have to say that it teaches you how to work with other people and how to accept other people's viewpoints serving on these boards. It taught me how to lead a meeting properly and how to follow the rules and procedures of the organization that you're in.

Is there an issue of particular concern to you that impacts the industry and/or NAAA?

No. 1 is this NPDES permit—how that's going to be implemented and how that will affect us. The failure of

the EPA to address those two words "near water"—all of this stuff is just the continued growth of government and regulatory intervention into every aspect of agriculture. As a farmer and as an aerial sprayer, I see that as one of the biggest concerns that we face down the road—the mindset that any little thing that pops up brings on another new rule and another new regulation. … And it's that mindset that they don't know what the effects that a lot of these regulations that get passed have on the people that actually have to be out here working the ground and spraying the fields.

This speaks to the importance of being involved in agricultural aviation associations and other farming organizations to try and get your voice heard.

That's correct. I see my dues that I pay to the SDAA and to the NAAA as the cheapest insurance policy premium that I pay for protecting my business. The good that comes out of these organizations by far outweighs whatever negative issues some people seem to have about either our state organization or the NAAA. You get people that growl and grumble about stuff, personal issues, and each organization can't solve everybody's one certain problem. But the good that we've been able to do on the state level and the national level—for instance, the fuel tax exemption that NAAA got through, the amount of money that my operation saved by not having to pay that federal excise tax on the fuel has been unbelievable.

What gives you encouragement and hope for the future?

Part of this I'll look at from the South Dakota side. We do have some young people that have stepped up, younger guys, 20 years-plus younger than me that have stepped up and are members of the [SDAA] Board. … The people here that I see are a positive to our industry, and the same [goes] on the NAAA level. That's what gives me encouragement, that we've got people that are willing to step up and take positions on the NAAA Board.

Can you share one good piece of advice that you received or learned from experience that has stuck with you over the years?

This is one thing that I've said over the years at the state board level when new board members come on. This is what my dad told me many, many years ago. He said, "If you agree to serve on a board, you be there when there's a board meeting so that your input can be incorporated into the meeting and into the policies that you come up with. Because if you don't show up at the meetings, what good is it to be on the board?" That's a piece of advice my dad gave me years ago, and I have tried to adhere to that. In a nutshell, if you agree to do something, do your best to make sure you live up to what you agreed to do. n

Introducing the 2011 WNAAA Officers

Julie Broussard, WNAAA President

Lewis Flying Service Inc.

The Women of the National Agricultural Aviation Association (WNAAA) elected Julie Broussard as their 2011 president. It was the next logical progression for the Louisiana native, who spent 2010 as the organization's vice president and 2009 as its treasurer.

Julie and Lewis Broussard have owned and operated Lewis Flying Service Inc. in Morse, La., for 32 years. They attended the same small high school and started dating in the 12th grade after Lewis asked Julie to be his date for the homecoming dance. They got married while he was serving in the U.S. Air Force.

"Our first home was all the way in California," Julie said. "I had never been away from Louisiana before, and it felt as though I was a million miles away."

After Lewis got discharged the Broussards returned to Louisiana and their home town of Morse. Lewis went to school got his A&P mechanic license and then worked as a loader, driver and mechanic. Julie got her introduction to agricultural aviation when Lewis started taking lessons to get his commercial license. He opened Lewis Flying Service soon thereafter.

Clockwise from top left, Vice President Kathy Diehl, Treasurer Elly Rau and Secretary Dona Jorden round out the 2011 WNAAA officer team.

Lewis handled the flying and Julie ran the office. She still serves as the scheduler and manages the ground crew and pilots when Lewis is out. She also does bookkeeping and payroll and cooks for the crew. Managing all that with four young children was no easy feat.

"The baby was three, and a handful, but I kept her with me in the office," Julie said. "Needless to say, I was a nervous wreck dealing with all these men. Thirty years ago we didn't have cell phones so everything had to be done face to face. I was a stay-at-home mom, not a businessperson. Soon I gained the respect of our customers, and they treated me like someone who knew what she was doing."

Julie still runs the office, only now she's babysitting her grandchildren at work instead of watching her children. The Broussards' four grown children, Chris, Paula, Jennifer and Kayla, have blessed them with six grandchildren, three boys and three girls.

Julie became involved with WNAAA when she started accompanying Lewis to conventions. Early on, LAAA Director Joan O'Brien invited Julie to tag along to committee meetings. "I found out what WNAAA was about and realized this was much more interesting than shopping my time away. I felt it would be educational to know what NAAA was all about because this is the way we all make a living."

Julie has served in various capacities on the WNAAA Board, including as an officer for the last two years. By taking on the role of president she is following in the footsteps of O'Brien, her mentor and a former WNAAA president. Julie's predecessor Jane Barber stated it takes all kinds of personalities to build a strong organization. Julie's leadership style is sure to include a healthy dose of her self-effacing humor. Noting the difference between being vice president and president, she quipped, "I'm one year older and hopefully wiser."

After 44 years of marriage and 32 years in business together, the Broussards and Lewis Flying Service are still going strong. "We both enjoy working with the farmers and doing all we can to feed the world."

The Rest of Broussard's Bunch

Two of Broussard's three officers have already had experience as a WNAAA officer. Broussard is joined by WNAAA Vice President Kathy Diehl of Garden City, Kan, who served as treasurer last year. Her husband Donnie Diehl is a licensed applicator in Kansas, South Dakota and Iowa.

The new treasurer, Elly Rau, served as secretary in 2009. Last year, she was essentially the First Lady of NAAA because her husband Brian Rau was NAAA's 2010 President. As a past president, Brian will continue to serve on NAAA's Board for the next five years. That means Elly will be there too, so she agreed to fill the treasurer's position this year. Keeping track of the money is something she's used to since she does all of the billing for Medina Flying Service, the business she and Brian run together in Medina, N.D.

Dona Jorden of Lane Aviation Inc. in Rosenberg, Texas, rounds out the new officer team. Jorden has been a member of the WNAAA Board of Directors for three years. As the Parts Manager for Lane Aviation, she understands the importance of doing her part and has a clear sense of how different pieces can fit together.

"The women in this group are very knowledgeable, devoted and giving to our association, and I admire them all," Jorden said. "They are supportive and helpful to the newcomers to the organization and I know I will learn much from each and every one of them." n

Fire Boss Aerial Firefighting/Water Drop Demonstration

Southern Cooking!

NAAA Experiences a Record-Setting Convention in Savannah

By NAAA Staff

NAAA's 44th Annual Convention & Exposition is in the books and by all measurements bringing the convention to Savannah, Ga., was an unqualified success for attendees, the Association and the city of Savannah, which estimated that bringing NAAA's convention to town pumped more than $1 million into the local economy. Other than the temperature, which dipped down to colder-than-usual levels for early December, everything else was up, including:

Fire Boss brought some extra buzz—literally—to the opening day of the convention. The company put on a live demonstration along the Savannah River. A Fire Boss 802F airplane performed a series of water scoops and drops that drew crowds along both sides of the Savannah River.

Attendance: Attendance was better than any of NAAA's conventions during the "aughts" (2000–2009) and the highest in 12 years. Selling out both of NAAA's original host hotels early on in the process was a good indication that interest in the Savannah convention was strong, and the final attendance figures bear that out. Nearly 1,700 people (1,687) descended upon Savannah, making this the best showing since 1,927 people turned out for the 1998 convention in Las Vegas.

Exhibitors: Exhibit sales were up 14.5 percent from 2009, eclipsing a record set just last year in Reno, Nev. This year, 142 exhibitors peddled their goods and services at NAAA's trade show, compared to the previous high of 124 exhibitors last year.

Hotel Space: NAAA also set a record for its hotel allotment in Savannah. Attendees reserved a total of 3,801 room nights in NAAA's room block across four hotels. That's 27 percent higher than NAAA's recent record of 2,992 room nights in Orlando in 2006.

Auction Proceeds: NAAA's Live Auction set another record, raising more than $460,000 for NAAA and WNAAA. $350,000 of that amount came from Garrett Lindell of Lindell Aerial Ag Service, Aledo, Ill. Lindell, who also was NAAA's 2010 Treasurer, came out on top in the bidding for the new PT6A-34AG turbine engine contributed by Pratt & Whitney Canada. It would have been a banner auction even without the engine, but P&WC took things to a whole new level. NAAA would like to thank Pratt & Whitney Canada once again for this unprecedented contribution and for the incredible support the company has shown NAAA and the industry over the years.

Sponsorships: Based on the amount of sponsorship signage at the Savannah International Trade & Convention Center, it was easy to tell this was a great year in terms of sponsorships. In fact, the 25 convention sponsors were the most ever. The extra sponsorship revenue enabled NAAA to offer attendees things like extra refreshments and free continental breakfasts at the convention center throughout the week.

Here are some highlights from NAAA's 2010 Convention from a week that had plenty of them.

NAAA/BASF Agricultural Aviation Scholarship

Dr. Gary Fellows, BASF's Technical Services Regional Manager, announced the winners of the inaugural NAAA/BASF Agricultural Aviation Scholarship at the Kickoff Breakfast on Dec. 6. NAAA President Brian Rau presented Ben Cadenbach with a check for $5,000 and Matthew Kollars received a $2,500 scholarship. Both young men hail from Kearney, Neb., coincidentally. Both are also pursuing a career in agricultural aviation and will use this scholarship to complete their commercial licenses. To be eligible for the Agricultural Aviation Scholarship, each applicant had to be sponsored by an NAAA member operator. Cadenbach was sponsored by Buffalo Air Services operator Sean Penner. Woods Aviation's Waylon Woods sponsored Kollars. Both businesses are based in Kearney, Neb.

ASABE/NAAA Technical Session

On Dec. 6, researchers from the Aerial Applications Committee of the American Society of Agricultural and Biological Engineers (ASABE) presented their findings at the ASABE/NAAA Technical Session. Topics ranged from an update on equipment that can maintain a large droplet size when released at high speeds to the best ways to develop a precise image of a field to make a variable-rate prescription application. Summaries of the ASABE presenters' research results start on pg. 42.

Ron Cline (standing) moderated an FAA/Security panel that included (from l-r) Dave Childs, FBI, Civil Aviation Security Program; Brian Delauter, TSA, Manager of General Aviation Programs; Mel Cintron, FAA, Manager, General Aviation and Commercial Division; Carl Johnson, FAA, Headquarters Aviation Safety Inspector; and Harlow Voorhees, FAA Safety Team.

FAA/Security Session

The FAA/Security Panel discussion was conducted by Ron Cline, Chairman of the Safety/Federal Aviation Regulations Committee, and included representatives from the FAA, TSA and FBI.

From l–r, Ben Cadenbach and Matthew Kollars, winners of the first NAAA/BASF Agricultural Aviation Scholarships, received a plaque and their checks from BASF's Gary Fellows and NAAA President Brian Rau.

On FAA issues, Mel Cintron reported on his involvement in the FAA's effort to reduce general aviation accidents and fatalities. He is working on a five-year safety plan for the industry that will be reviewed after two years of operation. Carl Johnson explained the safety procedures outlined in the recently released Safety Alert for Operators (SAFO) 10020 regarding "hot" fueling and servicing of aircraft used in the aerial application industry. Harlow Voorhees continues to work with NAAA on making operators and pilots aware of safety and risk management while doing applications.

Brian Delauter gave a brief rundown on the general aviation programs administered by the TSA. He provided an update on the Large Aircraft Security Program (LASP) which, as originally proposed, would have affected operators of large agricultural aircraft. This proposal is being modified and will be presented as an NPRM in future months.

Dave Childs, a regular participant at our convention, gave a review of security situations that have happened in general aviation which involved the FBI. He emphasized that experience proves we can't look at a person and decide who might be a threat to national or ag operation security. Always remain vigilant.

Chemical Session

In the Chemical Section, Scott Bretthauer covered how pesticide formulations and adjuvants impact aerial applications by reducing droplet size and reducing the evaporation rate of small spray droplets. Craig Alford from DuPont introduced Aminocyclopyrachlor, a new herbicide from DuPont for pasture and non-crop weed control. Mark Ledson from Syngenta described how spraying when it is hot and dry increases evaporation, which reduces droplet size and increases the risk of drift. Bretthauer also talked about how flying too low in very calm conditions with crop oil concentrate may decrease application uniformity. Look for more details about the Chemical Session on pg. 40.


Pratt & Whitney Canada
COVINGTON
Spectrum

General Session: Environmental Policy

The convention's General Session began on Dec. 7 with a look at some of the most pressing and potentially detrimental environmental policies facing the aerial application industry in recent years.

While most readers have already been following the issue of the NPDES permits, John Thorne, an NAAA consultant with Crowell & Moring, expanded upon the topic and explained the background leading up to the proposed EPA general permit. He punctuated his remarks by stating these are important times and the government is asking very much from aerial applicators. EPA is planning to finalize a general permit for six states by mid-January 2011 and the remaining 44 states are developing their own state permits which must also meet EPA approval. Thorne stated that some progress has been made in terms of possibly expanding the treatment thresholds, thanks to NAAA's efforts. He reiterated that the best possible solution to this contentious subject is a legislative solution in which Congress overturns EPA's rulings and exempts pesticides registered under FIFRA from water or any other type of permit. Scott Yackel added to this discussion by relating his experiences as chief pilot for the Chatham County Mosquito Control in the Savannah area. He gave session attendees an inside look at how he would personally have to deal with the NPDES general permit in his position, as well as the issues he already faces in spraying in a largely urban area.

NAAA consultant John Thorne (at right) discusses the new NPDES pesticide general permit system that the EPA is developing. On pg. 29, Scott Yackel, chief pilot for the Chatham County, Ga., Mosquito Control in the Savannah area, offers a frank assessment of the challenges he will face when the new NPDES requirements take effect. At press time, the final rule, which goes into effect starting April 9, 2011, had yet to be released.

Speaking on the difficulties facing agriculture under the Endangered Species Act (ESA) was Ken Racke, Dow AgroSciences. He discussed how a number of court cases involving the ESA will undoubtedly heavily impact agriculture. The resulting quandary has left the issue to be driven by activist lawsuits. Michael Bogert, session moderator from Crowell & Moring, spoke on what might lie ahead for ESA and stated there are some indications that new regulations may be developed. And while these indications all may bode well for agriculture, the Obama administration seems to be sending mixed signals regarding the ESA. Bogert stated the bottom line is for state governors

to remain vigilant in their concern over the broadening impact of ESA on their individual states.

Mark Ledson, Syngenta, gave remarks on spray drift issues, including EPA's recent spray drift draft proposal. His talk focused primarily on calculating spray drift buffers using FIFRA methodology. Ledson focused his presentation on possible model solutions for achieving labeling requirements for the future should spray drift language remain as originally proposed by the EPA. However, post-convention, NAAA has since learned EPA is considering draft drift language that is less onerous than its draft released last year stating not to drift in a manner that *"could cause* an adverse effect." The newly proposed draft language reads, "do not apply this product in a manner that results in spray [or dust] drift that harms people or any other non-target organisms or sites." The Agency has also stated that it hopes to have the spray drift language finalized by mid-2011.

General Session: FAA Medical Guidance

The final General Session speaker was Dr. Warren Silberman, the Manager of the FAA's Aerospace Medical Certification Division in Oklahoma City, Okla. Dr. Silberman's office is responsible for issuance of medical certificates to pilots. Dr. Silberman spoke about the difficulties of maintaining a valid medical as pilots age. The average age of agricultural aviation pilots has been increasing at a steady rate since operators have not needed to hire young pilots. As a result, active pilots are getting to the age that medical problems are more frequent.

Silberman explained that the FAA's medical examination is not a preventive medical exam—it is a check of the applicant's medical condition at the time the exam is taken. There are no mandatory tests that are based on age alone. He stated that of 430,000 medicals given per year, only .01 percent is denied. Certain conditions lead to an automatic denial of a certificate. There are also some medical conditions that don't require a waiver but do require the applicant to provide their doctor's statement with the application. The applicant can save time by learning of the required statements in advance.

Silberman reminded attendees that CFR §61.53 prohibits flying when they have a medical condition, are taking medication or are being treated for a condition that would be disqualifying.

Application Technology Session

Aerial applicators learned about some of the new advances in application technology at the Application Technology Session Dec. 8. DynaNav President Reg Moen gave a short presentation about the DynaFlight AirAg E-series GPS system, an affordable, entry-level system that he

K & P Flying Service Operator Brenda Watts of Watson, Ark., used her Southern charm to sell AgAv PAC tickets at NAAA's booth.

characterized as simple by design, yet flexible in application. Moen noted that along with the many amazing advances in application technology, it has become more and more complicated for the pilot. Companies need to be cognizant of that and strive to keep cockpit management to a level that is safe. The DynaFlight E-series includes all of the navigation features of the professional version, but it doesn't have the ability to upload and download files. According to Moen, it is "very, very powerful as a pilot tool," but it doesn't have all of the management-from-ground features.

Mike Reynolds of Leading Edge Associates LLC discussed DropVision AG, an advanced droplet-analysis system. Although it is capable of producing sophisticated droplet analysis reports, the DropVision AG system is simple, Reynolds said. It consists of a notebook computer, a specialized mobile scanner and proprietary droplet image analysis software and reporting software.

Once the water, oil or kromekote cards are scanned, DropVision AG can analyze each card individually or an unlimited number of images from multiple sources or locations can be processed. The software will identify qualified droplets by circling them in a green polygon. Red polygons represent non-qualified droplets. A very recent addition to DropVision AG is the ability to monitor off-site drift using a geographical information system and TracerVision, another Leading Edge product. This fluorescing dye is soluble in all oil-based insecticides used in mosquito control and agricultural applications.

Weather is always a factor for ag pilots. Aventech Research Inc.'s AIMMS-20AG measures winds, temperature, relative humidity and turbulence at application height, in real time. AIMMS stands for Aircraft Integrated Meteorological Measurement System. Getting wind directional information at aircraft level in real time is helpful because it gives ag pilots the ability to optimize efficacy of the application and prevent off-target drift. Fixed-wing and rotary-wing versions are available, but AIMMS is only beginning to gain a toehold in the ag aviation sector. Bruce Woodcock, Aventech's Director of Advanced Products Engineering, said a handful of ag operators are using it so far. More so, it is being used for forestry work right now.

Woodcock also discussed Aventech's AvStar system, which has been in the field for three years. AvStar is a satellite tracking and reporting system that lets users monitor their mobile assets remotely. All they need is a computer and an Internet connection. Each flight can be displayed and plotted over several map backgrounds, including USGS topographic maps and aerial imagery and Google road maps, terrain maps and satellite imagery. Users can generate their own background map imagery by loading their own Shapefiles. AvStar interfaces with other onboard systems, including the AIMMS meteorological measurement system. Two of the three AvStar systems have spray drift modules that take buffer zones into account.

Finally, Greg Guyette of Hemisphere GPS reviewed the company's 2010 product line and discussed its plans for 2011. Hemisphere listens closely to its aerial application customers, he said, and is always looking to add new features to its Air IntelliStar GPS system to help ag pilots. For example, Hemisphere added a red backlighting mode to its display screen, which facilitates nighttime flying. This was a result of customer feedback. The company also added customizable hot buttons to its IntelliTrac guidance software to eliminate extra key strokes. Hemisphere is pushing to make XM Weather compatible with IntelliTrac in 2011.

Another tool Guyette is intrigued by is OpenStreetMap (www.openstreetmap.org), a free editable map of the world. OpenStreetMap allows users to view, edit and use geographical data in a collaborative way. It's an evolving system, and the more people that use OpenStreetMap, the better the mapping becomes. Those maps could be put on a USB stick and inputted into IntelliStar.

Bill Reynolds, Leading Edge Associates, is working with Hemisphere on spray drift modules. One of the things Reynolds is making use of is aerial photography. In 2011 Hemisphere will continue to work with imagery and look at converting it to a prescription map for variable-rate spraying. Working with third-party groups, such as Aventech, AIMMS' manufacturer, is something Hemisphere would like to do more of, Guyette said.

*PAASS presenters Gaylon Stamps (center) and Randy Hale (right), with the help of operators like Iowa's Terry Sharp (left), gave new and prospective ag pilots an insightful look into what it takes to succeed in the aerial application industry at the Dec. 9 Com*paass *Rose Session.*

Com*paass* Rose Sessions

Bookend Com*paass* Rose sessions were offered at the beginning and end of the convention. Com*paass* Rose grew out of the PAASS Program as a way to help educate new pilots entering the aerial application industry. The Dec. 5 session was moderated by PAASS presenters Leif Isaacson and Harley Curless.

Landing a seat in this industry isn't easy. One attendee commented that upon completion of an ag school, he made more than 500 cold calls to operators looking for employment. Eleven took the time to show interest in him. That level of want-to is laudable. At the same time, the PAASS presenters pointed out that the operator has great risk to his company and personal reputation if a new pilot does not provide quality work. New pilots were warned that an operator faces a situation where "a single pass can ruin a career" by exposing the operator to damages and legal claims.

The theme most often heard during discussions was the need for loyalty by the pilot toward the company that he or she wants to work for. Some operators in attendance complained that they have had experience with breaking in new pilots that left them looking for "greener pastures" once they had some experience and had gone through the risky learning process. Others said that they had ended up training their competition when the pilot went out on his own and started a competing business.

A similar discussion took place at the Com*paass* Rose session on Dec. 9, which was led by PAASS presenters Gaylon Stamps and Randy Hale. To assess the makeup of a prospective ag pilot, operators tend to look at three things, Stamps said: personality, character and loyalty. Finding the right operator for a new or inexperienced ag pilot is also extremely important. "It takes a lot of patience on both sides to get a guy started," Stamps said. Com*paass* Rose participants heard loads of valuable advice, as several experienced ag pilots and operators in the audience shared their perspectives as well.

Helicopter Session

NAAA's Helicopter Session closed out its slate of concurrent sessions. Jeff Reabe of Reabe Spraying Service in Wisconsin moderated a roundtable-style discussion about the use of helicopters in the ag aviation industry. Attendees were identified and an attempt was made to address their questions or comments about any ag helicopter issues.

The main news to come out of the meeting was that the production rights to the Bell 47 helicopter have been transferred from Bell Helicopter to Scott's Helicopter Service of Le Sueur, Minn. Scott's is now in the process of getting organized and will provide support and parts for existing model 47 helicopters.

Farewell Banquet and Awards Ceremony

The highlight of the Farewell Banquet at NAAA's Convention has always been the NAAA Awards Ceremony, but in years past recognizing the award recipients has primarily been limited to the ceremony itself. NAAA's Awards Committee abandoned that approach this year in an effort to generate greater recognition for the award recipients and to keep the spotlight on them a little longer. Large poster signs of each person were on display throughout the convention, and profiles of each award recipient will appear in the next issue of *Agricultural Aviation*. The Awards Ceremony was enhanced by the weeklong buildup, and NAAA was able to honor nine individuals for their commitment to the industry and their communities. Please join NAAA in congratulating the 2010 NAAA Award recipients once again.

- **Agrinaut Award:** Terry Sharp (Iowa)
- **Allied Industry Individual Award:** Brent Short (Ark.)
- **Allied Industry Individual Award:** Ron Deck (N.D.) (posthumously)
- **John Robert Horne Memorial Award:** Jason Davis (Texas)
- **Larsen-Miller Community Service Award:** Lucille Schiffer (Mich.)
- **Opal & Bill Binnion Memorial Award:** Randy Hardy (Kan.)
- **Outstanding Service Award:** Peggy Knizner (NAAA)
- **William O. Marsh Safety Award:** Ken Degg (NAAA)
- **Evans-Christopher Operation S.A.F.E. Award:** Larry Roth (Okla.)

Near the conclusion of the banquet, President Rau thanked his 2010 officer team and introduced Rick Richter of Richter Aviation in Maxwell, Calif., as the incoming NAAA President for 2011. President-Elect Richter introduced his officer team—Vice President Mark Hartz (Grand Prairie Dusters Inc., Almyra, Ark.), Secretary Chip Kemper (Queen Bee Air Specialties Inc., Rigby, Idaho) and Treasurer Perry Hofer (Doland Aerial Spraying, Doland, S.D.)—and spoke about the power of the president's position and how humbled he felt when it sank in that he would be the voice of the aerial application industry, for all intents and purposes, for the next year.

The 2010 convention closed with an invitation from President Rau for everyone to attend NAAA's 45th Annual Convention & Exposition Dec. 5–8, 2011, at the Hilton in Las Vegas. The glitz and glamour of Las Vegas have always been a good draw for NAAA, but the success of NAAA's first-ever convention in Savannah has raised the stakes for 2011. Something tells us the folks who were fortunate enough to attend this year's show are going to have *Savannah, Georgia, on their minds* for some time to come.

Thank you to everyone who made this year's convention such a success! n

NAAA Executive Director Andrew Moore (podium, above left) and 2009 President Doug Chanay (podium, above right) thanked outgoing President Brian Rau for a job well done leading the Association throughout a busy and challenging 2010.

Thanks for the Memories

Commemorative Savannah Convention Photo CD Available for Sale

Approximately 350 photos from NAAA's 2010 Convention & Exposition in Savannah are available for viewing and purchase at RandyThompsonPhotos.com. Prints can be purchased individually in 4 x 6 and 8 x 12 sizes from NAAA's official convention photographer, or you can own all 350 photos by purchasing Randy Thompson's commemorative event CD for the bargain price of $40. For comparison, you can order one 4 x 6 print for $10 or get every photo on a CD for $30 more. Additional charges apply for shipping & handling and sales tax.

To order the CD, click on any of the thumbnail images in the NAAA-Savannah photo gallery and add the photo CD to your shopping cart. You can pay online by credit card or mail a check to Randy Thompson, made payable to him. For more information, please visit www.randythompsonphotos.com. NAAA's convention photos are filed under "Client Proofs."

Orders placed after Jan. 1 may not be filled until after Feb. 2, 2011. n

A December to Remember:

Top row, from l–r: A ribbon-clad Brian Rau; Drew Keahey and Brenda Watts catch up at NAAA's booth; Eric Klindt and Gaylon Stamps man NAAA's ag pilot advice booth; Middle row: Air Tractors along airplane row; inside the Thrush Aircraft tent; An attendee chats with Air Tractor's Leland Snow; Bottom row: Ardis Woods, "The Victorian Lady," shares tales of Savannah with WNAAA convention attendees; Santa's helpers at the WNAAA booth; Tulsa Aircraft Engines' booth, one of more than 140 at NAAA's Trade Show.

Scenes from NAAA's 2010 Convention

Top row, from l–r: Grayson Stamps draws the winner of the AgAv Pac 50/50 Raffle; there was nothing but warm welcomes at NAAA's Welcome Reception; Middle row: Retiring NAAA Awards MC Randy Hardy can skate off into the sunset after receiving a pair of ice skates from fellow MC Rod Thomas; a salad start to NAAA's Farewell Banquet; Bottom row: Randy Hale leads a round of applause; mingling at the Farewell Reception; Elaine and Dana Gustafson with Leonard and Lou Felix.

Live Auction Yields a Record Haul

NAAA's Live Auction raised more than $460,000 for NAAA and WNAAA! Thank you to everyone who helped make this our biggest auction ever, especially Syngenta for sponsoring the Live Auction Reception and the people and organizations that donated goods and services to the live and silent auctions.

The highlight of the night was the auctioning of Pratt & Whitney Canada's new PT6A-34AG engine. The freshly built engine (0 TTSN) arrived in Savannah straight from the factory. Garrett Lindell of Lindell Aerial Ag Service, Aledo, Ill., came out on top with a winning bid of $350,000. NAAA would like to thank Pratt & Whitney Canada once again for this unprecedented contribution and for the incredible support the company has shown NAAA over the years. Turn to pg. 38 to relive the excitement of the biggest moment of the auction all over again. n

2010 NAAA LIVE AUCTION WINNERS		
CONTRIBUTED BY	**NAME OF ITEM**	**PURCHASED BY**
Pratt & Whitney Canada	New PT6A-34AG Engine (0 TTSN)	Garrett Lindell
AeroFlow Systems	30 AFS Standard Check Valves	Chuck Holzwarth
Ag-Nav	$500 Gift Certificate to be used on any Ag-Nav product or service.	Matt Crabbe
Air Repair Inc.	Fast Start System	Bob Bailey
Airforce Turbine Service	$10,000 Gift Certificate toward the repair, overhaul or purchase of a PT6A Engine	Wes Kelley
APS Inc.	Braile Discs and Linings	Randy Everett
Bayer CropScience	To-scale Model of an AT-502 with NAAA Logo	Lynn Carlson
Covington Aircraft	$15,000 Gift Certificate for any job performed by Covington Aircraft towards a PT6-A, R985 or R1340 engine overhaul, maintenance or repair	Kyle Scott
CP Products Co. Inc.	50 CP-06 Swivels	Rick Reed
CP Products Co. Inc. and its dealers, Johnston Aircraft Service Inc., Lane Aviation Inc., Mid-Continent Aircraft Corp., Pickett Equipment Co. Inc., Sky-Tractor Supply Co.	50 CP 11TT Flat Fan Nozzles	Randy Hale
DuPont Crop Protection	#24 Jeff Gordon DuPont Motorsports Autographed Driver Suit	Jane Bailey
DynaNav Systems Inc.	$3,000 DynaFlight-AirAg System Gift Certificate	Bruce Hubler
Farm Air Inc.	One Set of Main Gear Legs to fit an AT-402 or AT-502	David Hrupsa
Fighters and Legends LLC, Mike and Al Schiffer, and Frank Kimmell	Corsair Ride	Harley Curless
Fire Boss LLC	To-scale Air Tractor 802 Fire Boss Model Plane	Frank Kimmell
Flying Tiger Aviation	$3,000 toward a Turbine Transition Course	Lou Stokes

Stan Jones (black hat) pumps up the crowd and demonstrates his flair for showmanship.

CONTRIBUTED BY	NAME OF ITEM	PURCHASED BY
Forest Protection Limited	Wind tunnel drop size distribution measurement and testing	Robert Chenard
Buddie Jordan	1980 Chevy V-8 60 Loader Truck with Bucket	Donnie Tanner
Lane Aviation	Ground Adjustable Balanced Pump Fan & Electric Brake	Glenn Holloway
NAAA Museum Committee	Harold Miller Trophy	Schiffer Flying Service
New Mexico AAA	The Little Metal Pedal Plane from New Mexico	Debbie Sharp
Prime Turbines	Fuel Nozzles for Small or Mid-size PT6 Engine	Jack Tanner
Professional Fibreglass	$500 Discount on Any Fibreglass Work	Barry Boyette
S & T Aircraft	A4949 Delco Motor (24v) with AN4101-CE Ceco Fuel Pump (400 gph)	Bob Bailey
Serv-Aero Engineering	Windmill/Fan Assembly	Leonard Felix
Southwest Turbine Inc.	Turbomaxx Crossover Duct	Kyle Scott
Dennie and Lou Stokes	Past President Hat (WNAAA)	Rick Reed
Dennie and Lou Stokes	Past President Hat (NAAA)	Dennie Stokes
Dennie and Lou Stokes	Past President Hat (NAAA)	Harley Curless
Tall Towers Aviation	P-51 Mustang Ride	Ray Edmiston
Teledyne Battery Products	Teledyne Battery Capacity Tester 12V/24V	Mark Hartz
Transland	2 Transland 56520 Stainless Steel Booms	Rick Richter
Turbine Conversions Ltd.	Single-point Fueling System, approved for all Thrush, AT's, Dromader & Ag Cats	Garrett Lindell
Wings Insurance	Two people, two nights at a luxury hotel in Las Vegas	Rick Reed

Re-Live-d Auction Moments

Pratt & Whitney Canada's fresh-from-the-factory PT6A-34AG engine, the most expensive item NAAA has ever auctioned off, produced a dramatic finish to NAAA's Live Auction. Top row, at right: P&WC Vice President Mike Perodeau says a few words before the engine auction gets underway; Middle row: A round of applause for top bidder Garrett Lindell of Lindell Aerial Ag Service, who is escorted to the stage by Stan Jones and gets a hearty handshake from Perodeau; Bottom row: The P&WC team flanks Lindell and his new engine; Lindell thanks Pratt & Whitney Canada for supporting NAAA and explains why he bought the engine.

5 Takeaways from NAAA's Chemical Session

By Scott Bretthauer, Ph.D.
University of Illinois, Application Technology Extension Specialist

Editor's Note: *Many states offer CEUs for attending NAAA's convention because it is a great way for aerial applicators to stay up to date on the latest research and technological advances across a spectrum of important subject areas. Some of NAAA's educational sessions overlap; however, attendees can't be everywhere at once. Scott Bretthauer delivered two of the presentations at an excellent Chemical Session, held Dec. 6. NAAA asked Dr. Bretthauer to summarize the presentations he and the other speakers presented for the benefit of* Agricultural Aviation's *readers.*

Weather and Flight Effects on Deposition and Uniformity of the Spray Pattern

Presenter: Scott Bretthauer, University of Illinois

The impact of flight parameters, weather and the use of crop oil concentrate (COC) on application uniformity and deposition was measured using a fishing line strung through a corn field. Under calm conditions with no COC, an application height of five feet had the most uniform application, followed by a height of 10 feet and then 20 feet. Under these same conditions, the best pattern uniformity was found with the standard swath width. Narrowing up or widening the swath width reduced uniformity. In the afternoon, with light winds and no COC, application heights of 10 and 20 feet were more uniform than an application height of five feet. Using the standard swath width again provided better uniformity than either narrowing up or widening out the swath width. Early in the morning under calm conditions and with the use of COC, an application height of five feet reduced application uniformity. For early morning applications overall, the use of COC dramatically decreased uniformity but increased deposition compared to applications where COC was not used.

TAKEAWAY: Under calm conditions, flying at lower heights while using COC may cause substantial reductions in application uniformity.

Tank Mix Influences on Spray Properties

Presenter: Scott Bretthauer, University of Illinois

All products put into the spray tank, whether it is the pesticide formulation, an adjuvant or a foliar fertilizer, can have an impact on the spray droplet size and the uniformity of the spray pattern. Droplet size measurement using the USDA-ARS high speed wind tunnel showed that adding a foliar fungicide substantially reduced the droplet size. Further addition of crop oil concentrate (COC), non-ionic surfactant, and foliar fertilizer did not appear to have much further effect on droplet size. The use of polymer deposition aid appeared to widen the droplet size spectrum (range between largest and smallest droplets). To examine the impact of these products on actual aircraft, several tests were conducted at fly-ins. With a crosswind, the use of a foliar fertilizer appeared to reduce pattern uniformity and deposition compared to water only. The additional use of a polymer deposition aid with the foliar fertilizer dramatically improved pattern uniformity and deposition. Flying into the wind, the addition of fungicide reduced the droplet size, similar to the wind tunnel testing, but did not alter the spray pattern significantly. The addition of COC slightly reduced or did not alter the droplet size and did not significantly change the spray pattern. The addition of a foliar fertilizer increased deposition on the string. The impact of COC and foliar fertilizers observed during aerial applications may be due to a further reduction in droplet size compared to the fungicide alone or it may be due to a reduction in evaporation of the smaller spray droplets.

TAKEAWAY: Pesticide formulations, adjuvants and foliar fertilizers can alter the droplet size and impact the spray pattern.

Aminocyclopyrachlor: DuPont's New Herbicide for Pasture and Non-crop Weed Control

Presenter: Craig Alford, Pasture Herbicides Portfolio Manager, DuPont Crop Protection

DuPont introduced a new herbicide, Aminocyclopyrachlor, for use in pastures and non-crop weed control. Aminocyclopyrachlor is part of a new generation of herbicides. It offers faster action and controls a wider range of broadleaf weeds and brush. Aminocyclopyrachlor is available in both concentrated liquid and dry formulations, and has a minimal impact on the environment with very low toxicity to wildlife. DuPont brands containing Aminocyclopyrachlor include Streamline (for industrial brush control and selective weeding), Viewpoint (for industrial weed control), Plainview (for bare ground weed control), and Perspective (for selective weeding/invasive weed management). Brands labeled for rangeland management include Pastora, Cimarron Plus, Cimarron Max and Velpar. Aminocyclopyrachlor works well to control many types of broadleaf weeds, vines and brush, such as leafy spurge, Canada thistle, mesquite and western ragweed. It has good tolerance across all grass types and can provide season long control.

TAKEAWAY: Aminocyclopyrachlor is a new herbicide from DuPont that offers improved control for pasture and non-crop weed control with reduced environmental impact.

Volatility, Evaporation, and Spray Drift

Presenter: Mark Ledson, group leader for formulation development, Syngenta

There are two types of drift—spray and vapor. Spray drift involves the physical movement of spray droplets through the air. Vapor drift involves the movement of pesticide vapors. They both involve the movement of the pesticide through the air to off-target sites, and the risk for both increases as temperature and wind speed increases, and as relative humidity and droplet size decreases. The difference is that vapor drift can occur after the application is made and is primarily impacted by the volatility of the active ingredient in the product. For instance, 2,4-D ester formulations have a higher risk of vapor drift than 2,4-D amine formulations.

Evaporation impacts both spray and vapor drift. It impacts spray drift by causing the spray droplets to become smaller, thus more prone to movement. Low relative humidity and high temperature both increase the rate of evaporation for spray droplets, and thus increase the potential for drift. For example, a 100 micron spray droplet (same diameter as the human hair) will last 57 seconds under cool, humid conditions, and only 16 seconds under hot and dry conditions. The size of the droplets and their proximity to other droplets also impacts the evaporation rate. Smaller droplets evaporate faster, but being close to other droplets reduces the evaporation rate. So, the evaporation rate near the nozzle is lower than parts of the spray cloud farther away. Certain formulations and adjuvants help by reducing evaporation.

A spray droplet is made up of two components: a volatile component, such as water, that will evaporate and a non-volatile component that will not evaporate. If all of the volatile components evaporate, all that will remain are the non-volatile parts of the formulation. The addition of non-volatile components such as oil in the spray solution can form a "skin" around the droplet and reduce the evaporation rate. During an inversion, a layer of cooler air is trapped beneath a layer of warmer air and there is no vertical air-mixing. Very small droplets remain suspended in the air, and can move off-target horizontally in a concentrated mass. Inversions can create a ground fog if there is enough humidity.

TAKEAWAY: Evaporation increases the risk of drift and can be reduced by spraying larger droplets, using anti-evaporants such as oil, minimizing spray height, spraying when it is cooler and more humid and avoiding spraying during an inversion.

BASF Update

Presenter: Gary Fellows, Technical Services Regional Manager, BASF

BASF introduced an SC formulation of Headline fungicide that offers the same level of performance of the EC formulation but without the characteristic SC odor. The SC formulation is applied at the same rate and does not require a change in application methods or adjuvant use. Headline AMP combines Headline with a triazole fungicide. In support of the Operation S.A.F.E. fly-in program, BASF will be continuing its aerial application equipment and NAAA membership program in 2011. This program offers aerial application operators a $225 incentive for each eligible aircraft that participates in a S.A.F.E. fly-in. The incentive can be used for NAAA membership or new nozzles or tips. Further details will be available soon through the NAAA website. BASF is also offering an online plant health education module at www.PlantHealthEducation.com. The course takes about 15 minutes to complete and participants will receive a $25 gift card after completing it.

TAKEAWAY: BASF introduced an SC formulation of Headline that offers the same benefits of the EC formulation but without the odor and continues to support Operation S.A.F.E.

Lessons from the 2010 ASABE Technical Session

By Scott Bretthauer, Ph.D.
University of Illinois, Application Technology Extension Specialist

Editor's Note: *This is the first article in a two-part series summarizing the research work presented at the 2010 ASABE/ NAAA Technical Session.*

As part of NAAA's 2010 Annual Convention & Exposition recently held in Savannah, Ga., the American Society of Agricultural and Biological Engineers (ASABE) held the technical session for their Aerial Applications Committee. Most ASABE committees hold their technical sessions at the ASABE Annual International Meeting. The purpose of ASABE technical sessions is for researchers who all work on the same subject to share their work with each other. This offers ASABE members the chance to learn what others are working on and critique each other's research methods and conclusions. The goal is to better research outcomes by sharing ideas.

The Aerial Application Committee holds its technical session at NAAA's Annual Convention so aerial applicator professionals attending the convention can participate in the meeting and learn the results of current research being conducted by researchers working on aerial application. It also offers an excellent opportunity for researchers and aerial applicators to discuss the research together, which can improve the direction and methods used for future research projects.

The studies described in the technical session are also written up as papers which are available via a link from the NAAA website (enter "ASABE Technical Sessions" in the search box). In order to provide the information presented at the ASABE Aerial Application technical session to those unable to attend the session, a summary of results are being presented in *Agricultural Aviation.* Here are summaries of the research projects presented at NAAA's 2010 Convention.

Role of Air Induction Nozzles in High Speed Airstreams

Authors: Hoffmann, W.C., Fritz, B.K., Lan, Y.
Presenter: Clint Hoffmann

Air-induction nozzles are a popular choice among ground rig applicators. Their design narrows the spray passage and uses holes to draw air into the spray solution. The result is a larger droplet size than other types of flat-fan nozzles used on ground rigs, and thus a reduction in drift. The USDA-ARS Aerial Application Research Group has been questioned numerous times by aerial applicators as to how air induction nozzles would perform on an agricultural aircraft. To answer this question, the USDA-ARS analyzed the droplet size of air induction nozzles using their new high speed wind tunnel, which allows them to simulate how nozzles perform during aerial applications. They measured the droplet size at speeds from 120 to 180 mph. What they discovered is that at these speeds, air induction nozzles create a droplet size very similar to standard flat fan nozzles. For all of the air induction nozzle designs tested, droplet size was reduced as speed increased, just as it occurs with standard flat-fan nozzles. They believe that air induction nozzles may not perform correctly at higher speeds because the high speed air creates a vacuum near the induction point. They noted that spray shot out from the induction holes after the spray was turned off. The research team concluded that air induction nozzles offer no advantage over standard flat-fan nozzles for aerial application.

TAKEAWAY: **The USDA-ARS discovered that air-induction nozzles offer no advantage over standard flat-fan nozzles for aerial applications and may not function properly at typical aerial application speeds.**

Dr. Clint Hoffmann and the USDA-ARS examined the effectiveness of air-induction nozzles on ag aircraft.

Attendees at NAAA's 2010 Convention listen intently to a presentation during the ASABE Technical Session.

Atomization of Aerial Spray Nozzles at Airspeeds Above 160 MPH

Authors: Fritz, B., Hoffmann, W.C.
Presenter: Bradley K. Fritz

Hopefully all of you are familiar with the USDA-ARS Aerial Spray Nozzle Models. They are available at http://apmru.usda.gov/downloads/downloads.htm. These models were developed using their high speed wind tunnel and droplet size measuring system. To develop the models, the droplet size of various nozzle types were evaluated under various orifice sizes, pressures, deflection angles and airspeeds. They allow aerial applicators to better select and set up nozzles to create the best droplet size for their application. However, the current models are limited to a maximum air speed of 160 mph because the high speed wind tunnel used by the USDA-ARS Aerial Application Research Group could not provide higher airspeeds. Modern agricultural aircraft are capable of speeds much faster than 160 mph, but no droplet size data is available from the models for these higher speeds. Higher speeds result in smaller droplets, but no data is available to describe precisely the droplet size at speeds above 160 mph.

In order to address this, the USDA-ARS group updated to a new wind tunnel capable of generating airspeeds

up to 215 mph. This new wind tunnel will allow them to update the models to provide droplet size data for nozzles used for aerial applications at higher airspeeds. The first test with the new wind tunnel examined the change in droplet size for 40-degree flat-fan nozzles as speed increased to 200 mph. They tested various orifice sizes, pressures and deflection angles. They confirmed that increasing the speed above 160 mph further reduces droplet size and are now able to provide exact droplet size data. They also found that at the higher speeds, the nozzle fan angle is compressed, and this compression increased as the deflection angle increased. The bottom line is that aerial applicators need to be careful at speeds above 160 mph because of the reduction in droplet size at these speeds.

TAKEAWAY: The bottom line is aerial applicators need to be careful at speeds above 160 mph because of the reduction in droplet size at these speeds.

A Reverse Venture Atomization Chamber

Author: Stocker, R.
Presenter: Russ Stocker

As was just mentioned, airspeed plays a big role in the droplet size during aerial applications. Higher speeds create smaller droplets. Droplets that are initially large coming out of the nozzle orifice shatter into smaller droplets when they enter the high speed air. In an effort to reduce the impact of speed on droplet size, a reverse venture atomization chamber is being developed. A standard venture chamber increases air speed. The reverse venture chamber slows down airspeed. The concept is that when spray is released in the reverse venture atomization chamber the speed of the air flowing past the nozzle is reduced, which reduces the shatter of droplets, resulting in a larger droplet size. The speed of the air is then increased as it leaves the chamber. The reverse venture atomization chamber has been tested in a wind tunnel and on an aircraft, and it does reduce airspeed at the nozzles. It reduced the amount of fine droplets by 50 to 90 percent. The chamber does reduce lift, about 312 pounds, and does increase drag, but it has less drag than a spreader. An aircraft with a complete chamber along the whole length of the boom had its spray pattern evaluated. The reverse venture chamber had no negative impact on the spray pattern and it increased spray droplet size. A drift study also confirmed it lowered drift compared to a standard setup. Work on improving the chamber continues, and the approval process is also moving forward.

TAKEAWAY: **The reverse venture atomization chamber had no negative impact on the spray pattern and it increased spray droplet size. Work on improving the chamber continues.**

Fusion of Remotely Sensed Data from Airborne and Ground-based Sensors for Cotton Regrowth Study

Authors: Zhang, H., Lan, Y., Yang, C., Suh, C., Westbrook, J., Hoffmann, W.C., Lacey, R.
Presenter: Yubin Lan

One potential source of revenue for aerial applicators is to provide a platform to collect various types of remotely sensed data related to agricultural production. The USDA-ARS is currently working on systems for remote sensing to develop a precise image that can be used to "map" pests. The map can then be used to create a variable rate prescription map for the field, allowing the amount of pesticide applied to vary across the field based on the level of the pest within that portion of the field. In this particular study, they were looking to find volunteer cotton plants, whose timely control is important. They looked at using aerial and ground based images, both separately and combined. The key is to be able to identify cotton plants from among the rest of the crop. Both the aerial and ground based systems by themselves had greater than 90 percent accuracy in identifying the volunteer cotton plants. When the aerial and ground data was combined, or fused, accuracy improved to 100 percent. They concluded that using the fused data would provide greater accuracy than using either data source separately.

TAKEAWAY: **The USDA-ARS is currently working on systems using agricultural aircraft for remote sensing to develop a precise image that can be used to "map" pests.**

Russ Stocker equipped his ag aircraft with a reverse venture atomization chamber and updated attendees on the status of his research.

Temporal Indications of Atmospheric Stability Affecting Off-Target Spray Drift in the Mid-South U.S.

Authors: Thomson, S. J., Huang, Y., Fritz, B.K.
Presenter: Bradley K. Fritz

This presentation addressed the questions of what atmospheric stability is and why should aerial applicators care about it. Atmospheric stability refers to how well air is mixing. Under stable conditions, there is very little mixing and the air tends to remain still. Unstable conditions are the opposite—there is good vertical air mixing and the air moves. Under too stable of conditions, small spray droplets don't disperse, remain suspended in the air because they are too light to fall, and can then move off-target in a concentrated mass. It is best to avoid spraying during an inversion because of this. Inversions are cases where air is very stable and does not mix vertically within the atmosphere, and occur as part of the daily temperature cycle. Inversions, or stable conditions, typically begin late in the afternoon or evening once the sun begins to set. They can last throughout the night into the early morning, and begin to lift once the rising sun begins to heat the ground and vertical air mixing resumes. Smoke is a good indicator of stability because vertical air mixing makes smoke rise. During an inversion, smoke moves horizontally instead of vertically. Another good indicator of stability is wind speed. The rules of thumb for early morning and late afternoons, when inversions might occur, are that wind speeds above 5–6 mph indicate unstable conditions. If wind speed is less than 3–4 mph, it is more likely an inversion exists. So, if wind speeds are above 4 mph you are not likely under an inversion.

TAKEAWAY: **Smoke is a good indicator of atmospheric stability because vertical air mixing makes smoke rise. During an inversion, smoke moves horizontally instead of vertically.**

Spray Table Evaluation of Miticides for Two-Spotted Spider Mites on Cotton

Authors: Lopez, J. D., Martin, D. E., Lan, Y.
Presenter: Dan Martin

The purpose of this research project was to determine mortality of the two-spotted spider mite at lower rates of miticide. The two-spotted spider mite is an important pest on cotton. The only control option for the two-spotted spider mite is miticides, which are mostly contact products. The mites feed on the underside of leaves and stems, and it is difficult to get spray material there. Understanding how to make effective aerial applications is critical to controlling this pest. Product rates as low as one-fourth of the label rate were able to effectively control spider mites on cotton. These products worked up to nine days after treatments were made. Effective control was not possible at one-eighth the label rate. Good coverage is essential for controlling the two-spotted spider mite. The spray must contact the mites located on underside of leaves.

TAKEAWAY: **Understanding how to make effective aerial applications is critical to controlling the two-spotted spider mite.**

Using Photography to Aid in Analyzing Airplane Spray Patterns at Operation S.A.F.E. Workshops

Authors: Wolf, R., Bretthauer, S., Newby, P.
Presenter: Robert E. Wolf

A typical Operation S.A.F.E. fly-in uses a fluorometer to provide an

analysis of an agricultural aircraft's spray pattern. A computer and scanner are used to analyze water sensitive cards to provide an analysis of the spray droplet size. Digital photographs are an additional tool that can be used to help setup an aircraft. Currently two different camera setups and locations are being used to take digital photographs of aircraft as they pass over the flightline. These digital photographs can be used as visible indicators of poor spray patterns. They can also be used to find nozzles that are causing problems seen with the pattern measured by the fluorometer. Good camera equipment is needed to take these photographs, and light conditions and camera positioning are important for getting useful photos.

TAKEAWAY: **Digital photographs can be used as visible indicators of poor spray patterns. They can also be used to find nozzles that are causing problems.**

Look for more summaries of the presentations from the ASABE Technical Session in the next issue of *Agricultural Aviation*.

Brad Fritz and the USDA-ARS looked at the effect that different atmospheric conditions can have on off-target spray drift.

2010 NAAA Awards: Profiles in Excellence

The highlight of the Farewell Banquet at NAAA's Convention has always been the NAAA Awards Ceremony, but in years past recognizing the award recipients has primarily been limited to the ceremony itself. The element of surprise was a key ingredient to the event's success, and NAAA went to great lengths to conceal the identity of its award recipients until the night of the Farewell Banquet. It made for some great moments, but that's what it amounted to—a few moments in time.

NAAA's Awards Committee abandoned that approach this year in an effort to generate greater recognition for the award recipients and to keep the spotlight on them a little longer. NAAA notified the award recipients of their selections in October and announced it in the NAAA eNewsletter. We also created large poster signs for each awardee, which were on display throughout the convention. If you're wondering whether this newfound openness detracted from the Awards Ceremony itself, the answer is no, it didn't lose any of its luster. If anything, the ceremony was enhanced by the weeklong buildup to it.

As a final salute, Agricultural Aviation recruited friends and colleagues of the 2010 NAAA Award recipients and asked them to help our readers get to know these award recipients better. These are their stories. n

—Jay Calleja, Manager of Communications

The award signs on display throughout the convention corridors in Savannah brought added attention to the recipients of the 2010 NAAA Awards.

He's a Sharp Guy

By Joel Meyer
Meyer Agri-Air LLC, Wellsburg, Iowa

I remember Terry Sharp resembling a sturdy hub of a multi-spoke wheel at the IAAA business meetings. We would find ourselves embedded in a wide variety of discussion and commonly a member would ask, "Well, what do you think Terry?" to which he would oblige with his opinion. As an individual who was handed the ag-aviation baton from his pioneering father, Terry has taken it and carried it for 31 years and is currently inspiring the same hand-off with his sons Weston and Jerad.

2010 Agrinaut Award

Terry Sharp

Agri-Tech Aviation Inc., Indianola, Iowa

A trained meteorologist by the United States Air Force, Terry at age 63 has exercised diverse interests and carried this formal training to his love of flying. He will talk candidly of the early years of aerial application without losing sight of the challenges of present day. Terry's ability to step out of the box and press onward is a talent I have seen him perform consistently but not without adversity. You will not find him taking the road most traveled because he will have taken the time to research the issue at hand and contemplate the proper direction.

For instance, in 2008, Terry was instrumental in working with sensitive crop growers associations and the Iowa Department of Agriculture, raising $10,000 for the development of signage to alert aerial applicators of sensitive and organic crop locations. He also worked with the Iowa Ag Retailers, Iowa Honey Producers Association and the Department of Agriculture to establish new regulations that reduced the number of drift and misapplication complaints. At the national level, Terry has been an active participant on the NAAA Board. He served as NAAA Convention Chair for a time and the Association's Vice President in 2000.

INTEGRITY and **ETHICAL** are two words that define Terry Sharp, and he will not compromise either of these standards as he mentors his sons, his pilots or anyone else involved in ag aviation. He is actively involved with his sons in creating a newly established company called ApplicationMGMT.com. The company's focus is to streamline the mapping and work order process to gain maximum efficiency in the organizational process.

Terry has dedicated his life as a prolific example to the agricultural aviation industry. He is a catalyst in this changing field of aviation, and I am thankful to count one of my mentors as Terry Sharp. The 2010 Agrinaut Award recognizes his efforts to improve the image, safety and productivity of the aerial application industry. The accolade is well deserved. n

Joel Meyer is president of the Iowa Agricultural Aviation Association.

Quite a Character

By Randy Hardy
Hardy Aviation Insurance Inc., Wichita, Kan.

I'm not exactly sure when I first became a member of NAAA, but from the start one of the friendliest faces I found on the allied tour was Ron Deck. Back when the association was split into smaller states associations, we spent a good part of our winter going between state shows. I found everyone nice, but the most consistent allied member who traveled to most shows was Ron and his wife Barb and/or staff. I cannot express with the proper words how much help that was for a startup guy that someone like Ron would help you, show you the ropes, invite you into parties you would not have otherwise been invited to and help you get to know everyone.

I watched Ron Deck for years be the first into a trade show floor to set up and usually the last to leave. I learned by watching people like Ron that even though it wasn't a client, he was always there to help someone if he bought something from somebody else and then needed Ron to explain it to him. Ron was a rock and a foundation to the Allied association through his efforts all those years. It was because of people like Ron that I first decided to accept a position on the NAAA Board.

As I started serving on the board, once again, many folks including Ron Deck took me under their wing and gave me a chance to succeed. Many people don't remember this, but Ron served as Chairman of the Constitution and Bylaws Committee for years, and he took it under his wing to markedly improve both the NAAA Constitution and Bylaws. By my memory, it took over five to seven years to finalize this endeavor. It's well documented but Ron spent a lot of his time working for NAAA and for the good of the aerial application industry, including serving as NAAA President in 1990.

Ron was particularly fond of his family and bragged about them all the time. There aren't many places where sons and daughters can work for their father and still all get along. Ron was the most patient man I knew (too patient at times), but because of this, his business was family and it showed when he got sick. Sadly, Ron passed away last September. He was 68 in body but young at heart to the end.

2010 Allied Industry Individual Award

Ron Deck

Sky-Tractor Supply Co., Hillsboro, N.D.
(Posthumously)

I remember when Ron was teaching Mike how to fly and he was ready to give him his solo cross country. We were in Las Vegas setting up the booths for the annual trade show and I had asked how Mike was doing with his flying lessons. He laughed and said we should know soon because he had Mike do his cross country flight from Hillsboro, N.D., to Las Vegas as a student—by himself! (Usually cross country is 100 miles.) A couple hours later we found Mike and he was at the hotel telling everyone about his trip. His nerves were still on overload and it was a good laugh until he remembered he had to do it again going home.

Ron was the type of person who would help you when you needed it and would listen when needed also. I am aware of many cases where Ron went out of his way, above and beyond, to help others in need. I was always taught you could tell the character of a man by the actions of a man. Ron Deck's character was never in doubt to me. n

Randy Hardy is NAAA's Convention Committee Chairman.

Fueled by a Desire to Help

By Mark Hartz
Grand Prairie Dusters Inc., Almyra, Ark.

Sometimes a person's name can be somewhat descriptive of them and other times not. While Brent's last name may be Short, his efforts on behalf of our industry are anything but.

2010 Allied Industry Individual Award

R. Brent Short

M. M. Satterfield Aviation Fuels

Brent is in the business of providing what is arguably the second most important thing to our industry, which is fuel. He makes regular visits to all his customers, usually around lunchtime, just to check and see if they need anything. If you find yourself in need of some smoke oil or turbine oil, don't be surprised if you see Brent's truck pull up the next day, usually around lunchtime, with whatever it was you needed.

One of the worst things that can happen in our business is to run out of fuel with your biggest day of the year ahead of you. That has happened to us. Brent and his equally dedicated co-workers literally moved heaven and earth to get us the fuel when we needed it. That is the reason why we have done business with his company exclusively since we started our business over 20 years ago.

Brent is responsible for a great many things as part of his job with Satterfield Fuels. Many people would say that's enough. Not Brent. He has served on the board of the Arkansas Agricultural Aviation Association for 10 years as the Associate representative. He has also served as our exhibit hall manager since 2002 and only recently relinquished that role.

In the spirit of asking a man who has already given a great deal to this industry to give a little more, Brent was asked in 2003 to serve as the allied industry representative for Arkansas to the National Agricultural Aviation Association. In that capacity he has served on numerous committees and has done so in such a manner that he was nominated and elected NAAA Secretary in 2009. Brent also chaired NAAA's Membership Committee for the last two years and continues to serve on the Board of Directors of NAAREF.

Brent Short is a living example of a stand-up guy, and all of us from Arkansas are proud to call him one of ours even if he persists in rooting for LSU over the Razorbacks. Brent is a person you can count on, and if you ever call on him, he will be there. Usually around lunchtime. n

NAAA Vice President Mark Hartz has been a friend and customer of Brent Short's for more than 20 years.

Always Willing to Lend a Helping Hand

By Marci O'Connell
MJ Aviation Inc., Letcher, S.D.

It was my first NAAA/WNAAA board meeting, back in the early '90s, when it was suggested that I "get to know" a guy named Randy Hardy because he might be an excellent connection for my job as the WNAAA Public Relations Committee Chair. Supposedly, he "knew a lot of people within the industry" *and* he owned an insurance company! What better person could there be for my "go-to" advisory connection when I needed help finding NAAA members to attend the FFA Career Show or the NCASE convention to represent our association? Or help in the funding department? After all, he owned an insurance company so he must have some bucks or, at least, he would help me find some!

It was a precarious setting, for me, that elevator ride when I first introduced myself to "Mr. Hardy" because I knew how beneficial this guy could be to my position with the WNAAA. Randy just beamed his big grin, made a little joke and said," Let me know if I can ever be of help." Over the years Randy has been a champion for WNAAA because he has never let us down. He has always been there for the WNAAA. His commitment and dedication has been exhibited on numerous occasions. He understands the importance of educating the general public about our often misunderstood role in world

The Faithful Servant

By Rod Studer
Crop Care Co. LLC, Shelby, Mich.

2010 Larsen-Miller Community Service Award

Lucille Schiffer,
Michigan AAA (Retired)

Lucille Schiffer is the type of person that comes to mind when someone mentions the Larson-Miller Community Service Award. Community service is a way of life to Lucille. It is the way people help their friends, neighbors, co-workers and sometimes total strangers to make the world a better place for everyone.

I have known Lucille for quite a few years and most of them were when she was volunteering her time, resources and many talents to the Michigan Agricultural Aviation Association (MiAAA). Lucille kept our organization running smoothly by keeping track of membership, collecting dues, arranging meetings, setting up speakers, paying bills, arranging meals and the list could go on forever. Needless to say, her volunteer work for the MiAAA was priceless.

Although I have no idea where she finds the time, Lucille is also a very active member of the Kalamazoo Air Museum. The 5,000+ hours she has volunteered at the museum shows that she is a very community-oriented person and reflects on her love of aviation and the desire to share it with others. Lucille is also very active in her church. Many times, when a family is in need, she is the person to talk to for a fundraiser dinner or a funeral luncheon. Although this is a brief account of the volunteering Lucille does, one should not forget that it is all on top of being a mother, grandmother, great grandmother and all-around wonderful person.

Lucille taught her children about the importance of giving back and instilled that same sense of service in them. Both of her sons, Al and Mike Schiffer of Al's Aerial Spraying, Ovid, Mich., have served in every office of the MiAAA. Nationally, Al was NAAA's 1994 President and NAAREF's Treasurer. Mike was NAAA Treasurer in 1997 and heavily involved in NAAREF and the early developments of the PAASS Program. It's clear that Schiffers and service go hand in hand.

Thank you, Lucille, for all you have done, and congratulations on receiving the Larsen-Miller Community Service Award. n

Rod Studer is president of the Michigan Agricultural Aviation Association (MiAAA) and serves as MiAAA's representative on NAAA's Board of Directors.

2010 Opal and Bill Binnion Memorial Award

James R. "Randy" Hardy
Hardy Aviation Insurance Inc.

agriculture. If he can't physically help, Randy takes the time to listen and then offers alternative solutions to avoid a dilemma.

He has attended the FFA Career Show as a representative for NAAA. He has assisted with monetary contributions for educational projects.

In his position as NAAA Convention Chair, and previously as NAAA Treasurer in 2003, Randy acknowledges WNAAA's serious role in promoting our unique industry. In my mind, Randy's reputation preceded him. He's connected, networked, committed and dedicated. And he does it all in a kind, gentle and diplomatic way—and with a *"HARDY"* grin on his face. n

Marci O'Connell, a past president of the WNAAA (1998–99), was awarded the Opal and Bill Binnion Memorial Award in 2002. The award is presented to someone who aids the WNAAA in its efforts to educate the public about aerial application.

16 Years and Counting of Outstanding Service to NAAA

By Andrew Moore
NAAA Executive Director

Have you ever made a call to NAAA in Washington, D.C., and realized as the phone is ringing that you are in an earlier time zone and there isn't bound to be anyone still in the office only to be surprised by the sound of a woman's voice on the other end greeting you with "National Agricultural Aviation Association, this is Peggy!" Peggy Knizner has been an employee of the National Agricultural Aviation Association since May 31, 1994. She doesn't work bankers' hours. She works until she accomplishes a monumental number of tasks she established at the beginning of her day and clears her desk. This is usually completed later in the evening on the East Coast coinciding with when folks to the west are thinking about calling it a day.

2010 Outstanding Service Award

Peggy Knizner
NAAA

NAAA has been blessed to have an employee so devoted, so industrious, so loyal, as Peggy has been to the agricultural aviation industry. It's not surprising to understand her work ethic once you consider Peggy's upbringing. She was born and raised in Miles City, Mont., as the oldest of six siblings on a sugar beet and dairy farm. She spent many a long day tending to her younger sisters and brothers, milking cows and hoeing stubborn weeds away from the beet crop. This hard-working ethic has followed her all of her life.

Her tenacity is not isolated to physical effort alone but also to intellectual efforts. She earned a bachelor's degree in history with minors in earth science and secondary education from the University of Montana. She worked in Montana as a teacher before moving to Wyoming where she met her husband Dennis.

Peggy eventually moved to Dennis's home state of Pennsylvania with their two children after he was discharged from the Air Force. After taking care of a young family while Dennis worked, she eventually reentered the workforce. After moving to the Washington, D.C., area with her family in 1989, Peggy worked for a communications and a printing company before finding her way to NAAA. She started as an administrative assistant and within 10 years moved to second-in-command as the assistant executive director. Other than lobbying, there is no function that she hasn't performed or had her hand in at NAAA. Her agricultural background and experience in education and communications has benefited the Association. She has edited the magazine, organized the conventions and board meetings, broadened membership and crunched the numbers for the Association. Saying she is multifarious is an understatement.

She has been a key component in the organization's recent health. Membership continues to increase. The Association has had budget surpluses for several years. All of this has led to enhancing NAAA's communications, education, government and public relations services. A major variable to this success is the institutional knowledge that Peggy's 16 years and counting has brought to NAAA along with her industriousness, passion for the membership and the wise frugalness she brings in handling the organization's finances.

I don't think there is an NAAA member or employee that won't agree to the commitment, devotion and effort she brings to the Association and the industry. For that reason Peggy was issued a Falcon pin in 1999 by NAAA President Charlie Adams for personal effort and dedication to the industry and the NAAA Outstanding Service Award this year. Thank you, Peggy, for all you do! n

Andrew Moore and Peggy Knizner have worked together at NAAA for 13 years.

NAAA's Safety Officer

By Randy Hale
Hale Dusting Service, Banquete, Texas

2010 William O. Marsh Safety Award

Ken Degg
NAAA

How many times have you participated in a PAASS presentation and thought, *Wow, that was awesome, the material was good and those presenters sure knew what they were talking about?* I hope that happens a lot, and as PAASS presenters we would love to take most of the credit for the success of the program, but we can't. So much is involved in building a program that is never seen by the audience, and these details are performed under the watchful eye of my friend Ken Degg. Ken works tirelessly to make sure our premier aviation safety program meets the standards that our industry has come to expect. I have had the pleasure of working closely with Ken the last two years and have seen firsthand the dedication and love he has for his industry and the concern he has for the safety of its members.

Ken began working for W.L.S. Flying Service in Illinois as an ag pilot in 1970. He eventually purchased the operation and ran it until 2002. Ken served in all officer positions in the Illinois AAA and then as their representative on the NAAA Board of Directors. He was elected Vice President of NAAA in 1994 and served as Chairman of the Safety and Federal Aviation Regulations Committee for several years. Ken brought his experience to NAAA by joining the staff in September of 2003 as Director of Education and Safety. One of his many duties is managing the PAASS Program. His many years as an ag pilot, operator, state and national association officer and just a down-to-earth great guy makes him perfect for the job.

The William O. Marsh Safety Award originated in 1972 and recognizes significant achievements in safety, safety education or an outstanding operational safety program. I can't think of a more deserving recipient than Ken Degg. This award will hang next to the Outstanding Service Award Ken earned in 1997. He is also a member of the prestigious Falcon Club, an award given at the discretion of the president to individuals who have made substantial contributions to the industry and NAAA. Ken, congratulations on receiving the William O. Marsh award, and thank you for your efforts in making the ag aviation industry safer and more secure. n

Randy Hale served as president of NAAREF in 2009 and 2010 and has been a PAASS presenter since 2008. He was NAAA's president in 2006.

Up-and-Coming Ag Pilot Gets a Stamp of Approval

By Jay Calleja
Manager of Communications

Being chosen as the 2010 John Robert Horne Memorial Award recipient is another "Stamp" of approval in a string of them for Texas native Jason Davis.

Davis grew up in the Bledsoe, Texas, a town of 125 people. In 2001 he began studying electrical utilities at South Plains College in Levelland, Texas, and it was there that he met, courted and eventually married a young woman named Carissa Stamps. That was his first "Stamp" of approval.

2010 John Robert Horne Memorial Award

Jason Davis

Stamps Spraying Service Inc., Panhandle, Texas

Three years passed while Jason supported his wife and young family as an electrician. Things changed, though, when his father-in-law, Gaylon Stamps, learned of Jason's life-long desire to be a crop duster. The family called a meeting and the decision was made. Jason, Carissa and their son Grayson would move to Panhandle and become the future of the family business, Stamps Spraying Service. That "Stamp" of approval came in the spring of 2005.

Jason learned quickly about chemicals, mixing, loading and aircraft maintenance. In the fall of that year he began flight training. By the spring of 2007 he had his Commercial Pilot's License and his Commercial Pesticide Applicator's License. Jason started in a Cessna 188 and after a good fungicide run on wheat, his future as an ag pilot was off to a good start. That summer he was fully approved for insurance coverage and under close supervision began to take over a greater share of all the flying.

Jason just finished his sixth season in the business and his fourth as a pilot. He has flown approximately 1,700 hours of ag, 50 of which have been in a Turbine Thrush. He earned an A&P license and meticulously keeps his airplane maintained. His performance and safe operations have been complimented by at least three other ag operators for whom Jason has flown and he has become an important part of the day-to-day operations at Stamps Spraying Service.

With a record free of accidents or drift claims, his attention to detail with aircraft maintenance and his pledge to fly safely for his growing family—Carissa, Grayson, Greenlee and Gemma—Jason Davis's selection as the 2010 John Robert Horne Memorial Award recipient is well deserved. n

The John Robert Horne Memorial Award is presented to a pilot with five or less years of experience in the agricultural aviation industry who has an exemplary safety record.

Getting Operation S.A.F.E. Off the Ground

By Jay Calleja
Manager of Communications

NAAREF's Operation S.A.F.E. Committee has instituted an award of its own to recognize individuals or entities that have made outstanding contributions to the Operation S.A.F.E. program. The new award is named after two pioneers in the design and development of spray nozzles, Bob Evans and Chris Christopher, and will be known as the Evans-Christopher Operation S.A.F.E. Award.

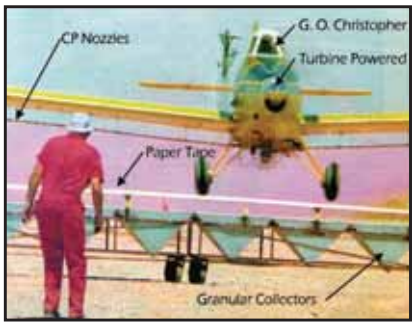
The first Evans-Christopher Operation S.A.F.E. Award goes to one of the men directly responsible for developing the equipment and procedures that led to Operation S.A.F.E., a comprehensive program of education and professional analysis of application. The backbone of Operation S.A.F.E. is the Professional Application Analysis Clinic, or as it is more simply known, the Operation S.A.F.E. Fly-In. Since its inception in 1981, more than a thousand S.A.F.E. Fly-In Clinics have been performed around the country, but the story of how they came to be couldn't be told without telling you about Larry Roth.

2010 Evans-Christopher Operation S.A.F.E. Award

Larry Roth
WRK Inc.

Larry Roth is a Wisconsin farm boy who earned a doctorate in Agricultural Engineering at Oklahoma State University in 1965. He remained on the faculty of OSU for 35 years, until he retired in 1986. His main research involved pesticide application technology with a special focus on aerial application. Through a NASA Grant, he and his colleagues developed the equipment and procedures that led to the NAAA Operation S.A.F.E. program and participated in the inaugural event in 1981.

The NASA proposal was a joint effort by Richard Whitney and Larry Roth. The primary purpose of the grant was to develop a technique to sample and measure spray deposition. Although he was not an official member of the NASA project, Dennis Kuhlman became an essential third member of the team. The three men continued to collaborate and by 1984 they had officially joined forces by forming the company WRK Inc.



High-profile fly-ins like the 1980 event Larry Roth (foreground) led in Chandler, Ariz., demonstrated the importance of pattern testing to a national audience. The person flying the plane is Chris Christopher, one of the men for whom the new Evans-Christopher Operation S.A.F.E. Award is named.

Whitney, Roth and Kuhlman started holding fly-ins around the country in 1980, which enabled them to fine-tune the pattern measuring equipment and streamline the fly-in procedures after each fly-in. Two of their higher-profile fly-ins took place in Chandler, Ariz., and Easton, Md. Those fly-ins demonstrated the importance of pattern testing to a national audience and NAAA began thinking about how this activity could be developed into a national education program.

At some point the "ground rules" were formalized and the inaugural Operation S.A.F.E. fly-in was scheduled for October 1981. Dr. Roth and Dr. Whitney conducted the fly-in using one set of the NAAA paper tape pattern measuring equipment. Sometime after that, Farrell Higbee, NAAA's Executive Director, contacted Roth and Whitney about conducting a workshop to "train" people on how to conduct fly-ins using the equipment and procedures they were using at each of their fly-ins. However, Operation SA.F.E. was not destined to grow significantly until WRK Inc. was created in 1984 and sets of the WRK String System were manufactured and sold to a number of state entities and other organizations.

Considering his vital contributions, it seems only fitting that Dr. Larry Roth receive the first Evans-Christopher Operation S.A.F.E. Award. n

ADVOCACY:
A "Civic Duty" for All Applicators

By John Thomas, Nebraska City, Neb.

When I was asked by Doug Johnson of Mid-State Aviation, Cozad, Neb., if I would be interested in being considered for membership in the 2010–2011 NAAA Leadership Training Program, I was both stunned and greatly humbled. As a relatively new ag pilot preparing for my second season, I felt very honored to even be considered for membership in such a small cadre of individuals. Without hesitation, I immediately said "yes." I knew I wasn't being considered because of my ag flying skills. I believed that I was being considered strictly because I was a "new" guy who had shown some interest in more than just the flying aspect of the aerial application industry; I wanted to learn as much as I could about it.

Several months later when I learned that I had been accepted into the program I pondered about what I could contribute as a member of this group. I reflected on the first Nebraska convention I attended in 2005 and how I was struck by the fact that, at age 40, I was one of the younger ones in attendance. The vast majority were "gray eagles" in their late fifties and beyond. It was readily apparent to me that a generational gap had been forming for quite some time. It was also easy to recognize the looming shortage of "replacement" pilots, but perhaps even more important was a potential shortage of the next generation of advocates for the industry.

From the beginning, I felt that if I wanted to make aerial application my new vocation, I would have to eventually become more than just a pilot; I would have to get off the sidelines and get involved in the larger industry in some way. The Leadership Training Program provided the answer—advocacy.

Without a willing group of young aerial applicators ready and able to speak on behalf of the industry there would be very little need for replacement pilots because the industry probably would not endure as we know it, especially when the current political trend is more and more regulations, not less. So, from the beginning, I felt that if I wanted to make aerial application my new vocation, I would have to eventually become more than just a pilot; I would have to get off the sidelines and get involved in the larger industry in some way. The Leadership Training Program provided the answer—advocacy.

A major focus of the Leadership Training Program is to instill the knowledge and tools needed to become an industry advocate, but by no means is being in the program a prerequisite

for being an advocate. Advocacy is needed in the local communities in order to help educate the part of the public unfamiliar with the role of aerial applicators. Advocacy is needed at the state and federal government levels, helping to persuade lawmakers to write legislation favorable to the industry, or dissuade them from passing legislation detrimental to it. Advocacy is needed with the allied industries to help ensure that strong partnerships endure well into the future, and advocacy is needed within the industry to maintain high ethical standards and professionalism among all pilot and operator members. The Leadership Training Program provides attendees the background information on current issues affecting the industry and communication skills to get involved at all of these levels. But anybody can do this and it is up to each NAAA member to determine how they can best aid the industry.

Given the extremely small numbers of aerial applicators in the United States (approximately 3,000) and the fact that the entire industry is somewhat obscure to the vast majority of Americans, it becomes increasingly important that the enormous contribution aerial applicators make towards feeding and clothing the world gets out. Every person who depends upon the aerial application industry for their livelihood has the responsibility to further it by speaking on its behalf whether through print media, electronic media, public speaking or in government relations to help ensure its future. For new ag pilots getting into the industry, it's more important than ever that we do what we can to learn about and promote this industry so that it will be around for us and for future generations. n

John Thomas completed the first half of the 2010–2011 Leadership Training Program at NAAA's Fall Board Meeting last October in San Diego. The leadership program resumes Feb. 11–13 in Arlington, Va.

Business Insurance:
Beyond Insuring Your Aircraft

By Jim Anderson
NAAA Insurance Committee

Just when you thought hull and liability insurance was all you needed, here comes more insurance considerations. Some are required by law and some are optional, but regardless keep in mind the concept of insurance is to protect your business interest and make sure that no matter what happens your future is protected. Here are some items 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 and 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:

1. **Basic Form,** which covers your basic building and contents from most perils;
2. **Broad Form,** which is inclusive of all of 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;
3. Lastly, a **Special Form** would generally cover a wider range of perils, except specific exclusions such as flood damage, earthquake coverage, war and acts of terrorism and 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 liable or slander, advertising liability or a slip and fall accident on your 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 injured by your business.

3 You really have choices when it comes to risk management:

1) insure against it,
2) transfer the risk to someone else, or
3) accept it and self insure.

Business Auto Insurance: I already insure my personal vehicle so why would I have to buy more insurance? Better read your personal auto policy very 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 three to five, 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 cleanup 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 designed to protect the environment and not the future of your business.

Other Types of Insurance to Consider

Some companies will "include" certain coverages in their basic policy form and others exclude these coverages. Some of them can even be purchased individually from an insurance company.

Excess Liability: Basically, another policy that will go "on top of" your primary general liability policy if you want more coverage.

Employee Practices Liability: Covers your business in the event you are sued for wrongful discharge, discrimination or sexual harassment just to name a few of the common perils. 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: 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 in the worst possible event passes on unexpectedly? Health and life products are benefits not only for the employees of the company, but 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.

Bottom line is 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, or 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 is 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. n

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Is there an insurance matter you would like to learn more about or think would be of interest to Agricultural Aviation's *readers? The NAAA Insurance Committee welcomes your suggestions. Please send insurance article ideas to information@agaviation.org.*

New FAA Aircraft Registration Rules Take Effect

By Ken Degg
NAAA Director of Education & Safety

In July 2010 the FAA issued a final rule that changes the way FAA aircraft registrations are handled and sets a schedule for re-registration. The new procedure became effective Oct. 1, 2010. The reason for the change? The FAA estimates that one-third of the 357,000 registered aircraft have questionable registrations. These problem registrations can be the result of failure to re-register an aircraft after resale, failure to report the death of the owner, failure to report scrapping or destruction of an aircraft or failure to report a change of address.

Under the new system, aircraft registered after Oct. 1, 2010, will have a registration with an expiration date three years from the date of issuance. At the end of three years, it may be re-registered in three-year increments.

Aircraft that were already registered prior to Oct. 1 will have an expiration date established for the certificate so that it can be worked into the three year renewal cycle. All currently registered aircraft will need to be renewed on a specific date within the next three years in accordance with the published schedule that appears below.

The expiration date of the registration on currently registered aircraft is based on the issue month of the present registration. For example, if your registration certificate was issued in March of any year, it will expire on March 31, 2011. The FAA will send a notice about six months before the registration expires. If there are no changes in the registration, it can be renewed online from the time the owner received notification until two months prior to the expiration date. This is referred to as the "timely filing window." If changes need to be made, a form should be completed, signed and mailed to the FAA with a $5 fee. If the timely filing window has closed online, the application and fee must be mailed to the registry.

The system depends on having a proper mailing address on file for each registered owner in order for them to receive a renewal notice. It is strongly suggested that all aircraft owners verify that the registry has the owner's current address. This can be done at *http://registry.faa.gov/aircraftinquiry/* by entering the N-number of the aircraft and viewing the information contained in the FAA's records. If the address is not correct, consult *http://www.faa.gov/licenses_certificates/aircraft_certification/aircraft_registry/change_of_address/* for the forms and methods of correcting the mailing address.

NAAA has more information about the FAA's new aircraft registration procedure available at: *www.agaviation.org/sites/default/files/Aircraft-Registration-change-10-1-2010.pdf* n

AIRCRAFT RE-REGISTRATION SCHEDULE

IF THE CERTIFICATE WAS ISSUED IN:	THE CERTIFICATE EXPIRES ON:	THE OWNER MUST APPLY FOR RE-REGISTRATION BETWEEN THESE DATES TO ALLOW DELIVERY OF A NEW CERTIFICATE BEFORE EXPIRATION
March of any year	March 31, 2011	November 1, 2010 and January 31, 2011
April of any year	June 30, 2011	February 1, 2011 and April 30, 2011
May of any year	September 30, 2011	May 1, 2011 and July 31, 2011
June of any year	December 31, 2011	August 1, 2011 and October 31, 2011
July of any year	March 31, 2012	November 1, 2011 and January 31, 2012
August of any year	June 30, 2012	February 1, 2012 and April 30, 2012
September of any year	September 30, 2012	May 1, 2012 and July 31, 2012
October of any year	December 31, 2012	August 1, 2012 and October 31, 2012
November of any year	March 31, 2013	November 1, 2012 and January 31, 2013
December of any year	June 30, 2013	February 1, 2013 and April 30, 2013
January of any year	September 30, 2013	May 1, 2013 and July 31, 2013
February of any year	December 31, 2013	August 1, 2013 and October 31, 2013

Aircraft registration issued under re-registration expires three years after the last day of the month in which it was issued.

NAAA Membership Application

There's no time like the present to protect your future.

Become an NAAA Member today!

2011 NAAA Membership Application

Please note: NAAA Membership runs from Jan. 1 to Dec. 31 regardless of the date joined.

Membership Categories: (please select one)
Dues amounts are subject to change by NAAA Board.

Operators & Pilots who do not belong to a State/Regional Aerial Application Association must pay Participating Operator or Participating Pilot dues.

$450	___ Operator
	___ $10 each aircraft over 3
$170	___ Affiliated Operator
$900	___ Participating Operator
$170	___ Pilot
$340	___ Participating Pilot
$450	___ Allied (1–10 employees)
$680	___ Allied (11–50 employees)
$850	___ Allied (51–100 employees)
$1,000	___ Allied (101–500 employees)
$1,700	___ Allied (500+ employees)
$170	___ Affiliated Allied
$85	___ Associate
$225	___ International
$680	___ State/Regional Association
$170	___ WNAAA

Allied Industry Indicate your division:

__ Airframe __ Application Technology __ Chemical
__ Dealer/Parts __ Insurance __ Propulsion __ Support

Not sure which categories applies to you? Visit www.agaviation.org/Membership%20Classification.pdf for more information.

Name: _____

Company: _____

Address: _____

City, State, Zip: _____

Bus (_____)_____ Home (_____)_____

Fax (_____)_____ Cell (_____)_____

E-mail _____

Website: _____ Spouse _____

NAAA Dues $_____

NAAREF Donation $_____

Please consider a donation to support NAAREF programs.

(NAAREF depends on your donations to pay for PAASS and other programs such as Compaass Rose, Operation S.A.F.E., Fly Safe and Athena. PAASS attendance fees do not completely offset program costs. Your additional donation, made out to NAAREF, is greatly appreciated and is tax deductible.)

Total Payment $_____

Payment via: ___ Check Enclosed ___ Credit Card

Card # _____ Exp Date _____

Signature _____
(signature authorizes billing credit card)

Cardholder Name _____

Cardholder Address _____

Date _____

Mail to: NAAA, 1005 E Street St., Washington, DC 20003 Ph: (202) 546-5722 Fax to: (202) 546-5726 E-mail: information@agaviation.org Join online – www.agaviation.org

Dues, contributions or gifts to the NAAA are not tax deductible as charitable contributions for income tax purposes. Dues and similar payments may be deducted as ordinary and necessary business expenses subject to restrictions imposed as a result of the NAAA's lobbying activities as defined by Section 13222 – Omnibus budget Reconciliation Act of 1993 {IRS Code 162(e)}. NAAA estimates the non-deductible portion of dues paid during calendar year 2010 as 17%. Agricultural Aviation subscription cost ($30 for domestic, $45 for international) is included in membership dues for all membership categories.

Welcome to New Members

As of December 15, 2010

AL-SUPPORT #1

Dan Whited
Auger Dan LLC

OPERATOR

Arlie Aeschliman
Aeschliman Aero

Richard Ambrosini
Ambrosini Helicopters Inc.

Jon Slikker
Vince Dusters

PILOT

Jack Appleton
West Wind Airspray

Daniel Bedgood

Zack Brimer
Taylor's Flying Service

James Burch
Burch Flying Service Inc.

Doug Cash

Thomas Stein
Independant Contractor

ASSOCIATE

Clarence Abshire
Bayer CropScience

Gregory Dean

Paul Edwards

Herb Maraman
GA Air National Guard

Brian Mortin

Dwight Neil

Daniel O'Donnell
Allen Chorman & Sons

Bob Reeves
Phoenix Advisory Services LLC

INTERNATIONAL

Anders Hellstrom
Nykoping Aero Support

NTSB Accident Report

Date	City	State	Aircraft Type	N #	Injury	Description of Accident
07/09/10	Chillicothe	MO	G-164B	6513K	None	Settled back onto ground after TO
07/22/10	Alexandria	LA	G-164	6772Q	None	Power loss–forced landing in rice field
08/18/10	Genesee	ID	G-164	8150K	None	Caught wing in crop–gusty wind conditions
08/27/10	Basile	LA	G-164	63E	None	Right brake failed on landing
08/31/10	Ligurta	AZ	S2R-G10	6125X	Serious	During night application, unable to outclimb terrain
09/02/10	Murtaugh	ID	G-164B	7502Y	Minor	Exited runway–hit pole–gusty wind conditions
09/03/10	Craigmont	ID	Ce T188C	9980J	None	Tailwheel shimmy caused loss of control on landing
09/06/10	Hondo	TX	A188B	731PQ	None	Hit crop after steep field entry
09/07/10	Winters	CA	SA315B	17285	None	Power loss–hard landing on autorotation
09/10/10	Doerun	GA	S2R-G10	2312Y	None	Power loss–hit trees on forced landing
09/17/10	Atkins	AR	AT-301	2309F	None	Power loss–forced landing
09/18/10	Covington	TN	OH-58A	38FA	None	Power loss–hard landing
09/21/10	Mecca	CA	UH-12E	6053H	Minor	Hit pole with main rotor blade
09/21/10	Blessing	TX	G-164B	8157K	Serious	Hit power line
09/23/10	Pocahontas	AR	S2R	8820Q	Serious	Hit embankment on takeoff–aircraft burned
09/24/10	Taylorsville	MS	OH-58A	132HD	Serious	Impacted trees for unknown reason
09/25/10	Gaston	OR	Bell 47G	7860S	None	Landing on trailer that was not level
10/01/10	Edison	GA	G-164B	48417	None	Lost contol on landing–Possible brake problem
10/05/10	Texarkana	AR	S2R	8432V	None	Power loss–damaged on forced landing
10/11/10	Michigan	ND	G-164	554Y	None	Continued TO despite reduced power
10/13/10	Newton	TX	Bell 206B	499BH	Serious	Ground man hurt–attempted TO with hose attached
11/15/10	Madison	FL	UH-12E	4034Z	None	Hit terrain–settling with power

CLASSIFIEDS

NAAA Welcomes Danna Kelemen to the Team

NAAA would like to welcome Danna Kelemen as the newest addition to our staff. Danna joined the association in November as the Coordinator of Government and Public Relations.

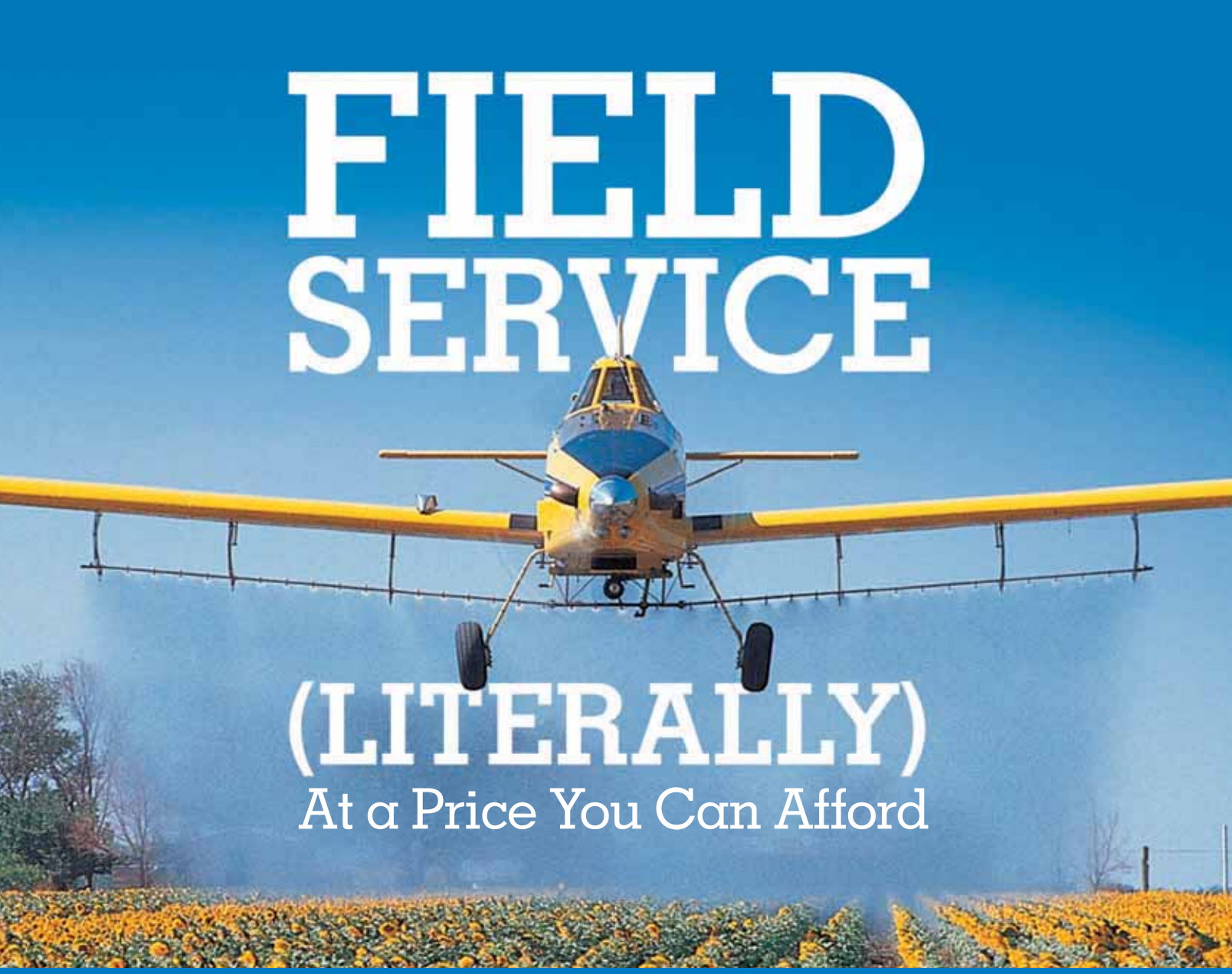
Danna is no stranger to association work or agriculture. She most recently worked as a teaching associate at Oklahoma State University in the Department of Agricultural Education, Communications & Leadership while she completed her Ph.D. Since moving to the Washington, D.C., area about four years ago she has done communications consulting work for various agricultural organizations. Previously, Danna worked for 10 years in the agricultural industry in Texas in a communications and governmental relations capacity. She served as the Communications Director for the Vocational Agriculture Teachers Association of Texas where she gained valuable political and communications skills. Additionally, she also worked for the Texas State Soil & Water Conservation Board where she became very familiar with point source and non-point source water pollution as it pertains to the agricultural industry.

Learning about the agricultural aviation industry is something Danna says she is excited about. "This position is a perfect fit for me and couples my love for agriculture with politics and communications." She says, "I love to write and my husband is a lobbyist so governmental relations comes naturally to me."

Danna spent her formative years in Alaska, but is quick to tell you she is a native Texan who grew up riding and showing horses. She enjoys reading, watching her daughter play soccer, spending time with her family and being outdoors. She and her family love to travel and when on vacation you will likely find them at the beach or visiting family in the great state of Texas.

Danna Kelemen is NAAA's new Coordinator of Government and Public Relations.

Danna resides in Springfield, Va., with her husband George and their two children, Kelsy and Cooper. n



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