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Official Publication of the National Agricultural Aviation Association www.agaviation.org

September/October 2010 Vol.38, No.5

The Cotton Connection

A symbiotic relationship between agricultural aviation and cotton that began in the '20s is as strong as ever



Also Inside:

- Getting Modern Agriculture's Environmental Message Out
- NAAA Launches New and Improved Web Site
- Momentum Building for NAAA's 2010 Convention





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If you submit a story or picture for publication, we will do our best to handle your materials with care, but we cannot be responsible for their safety.

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

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Agricultural Aviation (ISSN 0745-4864) is published bimonthly by the National Agricultural Aviation Association. © 2010. Editorial and circulation office: 1005 E St. SE, Washington, DC 20003. Change of address: Please send notices to the circulation department and include your old mailing label with your new address, including zip and postal codes. Please also include your new phone and fax numbers. Allow two months for the change. POSTMASTER: Send address changes to Agricultural Aviation, 1005 E St. SE, Washington, DC 20003. Periodicals Postage Paid at Washington, DC and at additional mailing offices. Printed in York, Pa. Distribution coverage: Distribution includes NAAA members and those in related industries, educators, libraries, government officials and the news media.



ON THE COVER

Operator Dan Kubal of Kubal's Aerial Spraying Inc. applies a cotton defoliation treatment in Levelland, Texas

ALSO INSIDE:

Surf's up! There's a lot to explore—and like—about NAAA's new and improved Web site



Cover photo by Elliot Yanzuk, Yanzuk Photography, Lubbock, Texas.

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President's Message

Brian Rau

An Army of Five

Vould you like to get the best possible return on an investment of \$450? For only \$450 you can hire five people to work for your business for one year. They will work on public relations, act as a government liaison, lobby for your business interests at the federal level, organize training and safety programs, put on a convention, promote and provide information on aerial application research and technology, help you develop leadership and communication skills and much more. I, of course, am referring to the five full-time staff members who work for NAAA/NAAREF. You can hire these five people by becoming an NAAA member. (Operator member dues are \$450 and pilot members pay \$170. Join online at www.agaviation.org or fill out the membership form on pg. 46 in this issue).

Executive Director Andrew Moore, Assistant Executive Director Peggy Knizner, Director of Education and Safety Ken Degg, Manager of Communications Jay Calleja and Office Affairs Coordinator Margaret Dea are working hard for the aerial application industry. In all fairness, many other NAAA, WNAAA and Allied members take their turn contributing to the industry through NAAA, but the day-to-day operations fall to our five staff members. Someone is available to quickly address agricultural aviation issues by calling direct during business hours, e-mailing the staff directly or writing to information@agaviation.org.

The regulatory battle at the federal level is becoming more time-consuming for NAAA with each passing year. Issues

involving drift label language, pesticide permits, climate change legislation and the FAA need to be monitored and addressed almost on a daily basis. Public relation battles with wind energy, the perception of the aerial application of pesticides and sustaining the future of the aerial application industry are foremost in NAAA's collective mind. A presence in Washington, D.C., and on the national stage is vital to the industry. If you are not a member, please do your part and join NAAA.

It is not too late in the year to join. You can still be a big help while enjoying the benefits of membership:

- Discounts to the 2010 NAAA Convention & Exposition in Savannah, Ga. (Don't miss this convention; see pg. 22.)
- Access to public relations and communications materials such as the wind tower public outreach tools, the Growing Role video, WNAAA educational materials and the NAAA media relations kit.
- Rebates provided by BASF for attending Operation S.A.F.E. spray pattern testing.
- Eligibility for new pilot scholarships, the NAAA/ Syngenta Leadership Training Program and WNAAA scholarships.
- Insurance discounts.
- Access to a database of operators throughout the U.S. and internationally.
- These are just a few of the benefits of membership. For more great reasons, see pg. 44.

JOIN NOW. It is a deal that can't be beat!



Margaret Dea, Office Affairs



Ken Degg, Education & Safety



Peggy Knizner, Assistant Executive Director



Jay Calleja, Communications



Andrew Moore, Executive Director





Executive Director's Message

Making Modern Agriculture the Consumer's Environmental Choice

Trecently attending an excellent conference in Washington, ▲D.C., hosted by CropLife America, the trade association representing crop protection product manufacturers. The conference was titled "Modern Agriculture: Exploring Its Relationship with Technology, Science & Society." Its focus was to analyze the question of how best to utilize the world's resources and technologies to feed, clothe and fuel our growing population. Media and national policymakers were invited to hear the perspectives from academia, industry, think tanks, media, government officials and environmentalists in the fields of agriculture, food safety and security about the best way to ensure that the global cupboard stays stocked for the predicted 9.1 billion inhabitants in 2050. Even with all these perspectives, a preponderance of these experts seemed to conclude that modern agricultural production, which includes biotechnology and the judicious use of synthetic pesticides, is the most logical, efficient and even environmental way to address our food, fiber and energy needs.

According to one of the conference's panelists, Johanna Nesseth, the director for the Center for Strategic and International Studies Global Food Security Project, 70 percent more food than is produced today will be needed to supply to 2.2 billion additional people expected to inhabit the planet by 2050. This will need to be accomplished using 20 percent less fresh water on the same amount of arable land that we have today. Because organic agricultural practices do not yield the same amount of agricultural products on a per-acre basis, modern agriculture must be relied upon to meet the growing demand for agricultural products. When you consider that continent-size tracts of carbon-sequestering, virgin land would need to be plowed under if the global population would have to rely on organic methods, it becomes pretty apparent that modern agricultural production wins the environmental argument as well. However, a recurring sentiment from the conference's experts directed at those promoting the message of modern agriculture was that we must do a better job of communicating modern agriculture's message.

This begs the question, why isn't this message reaching the average Joe and Josephine? That question was partially addressed by some of the panelists. It tends to be human nature to focus on worse-case scenarios, according to George Gray, professor of environmental health and occupational safety at George Washington University. Michael Specter, a science, technology and public health reporter for the New Yorker and formerly The New York Times, stated that people have the belief that big business, big science and big government are bad. Hence, the public is less likely to listen to what they have to say. Health claims on food labels, such as the ubiquitous and meaningless claim "all natural," coupled with the government's "miss" record in approving drugs and other products that later augment rather than mitigate negative health effects are factors in this public skepticism. This belief is exacerbated by environmental

A recurring sentiment from the conference's experts directed at those promoting the message of modern agriculture was that we must do a better job of communicating modern agriculture's message. This begs the question, why isn't this message reaching the average Joe and Josephine?

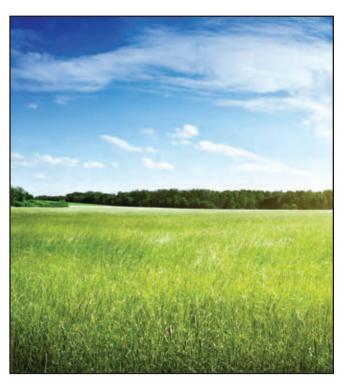
Executive Director's Message



activists and the fear that they peddle—some of these groups actually receive state funding in Europe.

This all syncs well with the 24-hour news cycle and competing networks embracing "emotion-based," not science-based stories that are more apt to capture the attention of the average viewer. Mix all of this in with the fact that, according to Professor Gray, there is an irrational percentage of the population—for example, 20 percent of the population believed O.J. Simpson was innocent and that UFOs exist. All this would explain why 31 percent of the U.S. population feels negatively about our food technology, according to a 2010 study about U.S. consumers' attitudes conducted by the International Food Information Council (IFIC). When it comes to food, people's passions are raised. This is the stuff we ingest. The New Yorker's Michael Specter has covered a number of challenging issues from abortion to the Russian War in Chechnya, but never has he felt more threatened by his readers than when he wrote favorably about genetically modified organisms (e.g., bio-tech seeds).

But it's important not to diss the food-technology skeptics. They are a powerful lot. The abundance of regulation that affects the agricultural industry from crop protection product manufacturers to aerial applicators is a result of



According to Johanna Nesseth of the Center for Strategic and International Studies Global Food Security Project, 70 percent more food than is produced today will be needed to supply to 2.2 billion additional people expected to inhabit the planet by 2050. This will need to be accomplished using 20 percent less fresh water on the same amount of arable land that we have today.

these skeptics influencing government policy makers. More regulation is not what we need. Research sponsored by the Small Business Administration's Office of Advocacy found that federal regulations amounted to \$1.1 trillion in 2004, and that the cost per employee for firms with fewer than 20 employees was \$7,647 annually, 45 percent greater than the per-employee cost of regulations for firms with 500 or more employees. We have a difficult enough task at hand in providing agricultural abundance to 9.1 billion people in 40 more years. We don't need more regulations to heighten the challenge.

James McWilliams, an associate professor at Texas State University-San Marcos and author of four books related to food and agriculture, believes the modern agriculture industry needs to make a sexier argument on behalf of its production methods and focus on making more environmental arguments. Reporter Specter says you need to listen to the [environmental activist's] side. This may require a lot a tongue biting, but it is imperative. I know. Recently I was at my nephew's rehearsal dinner and my brother and I were having a conversation with the parents of the bride. The mother told me she was convinced that organic potatoes were tastier than conventionally grown ones. My brother, a potato farmer, was gritting his teeth. I did ultimately hear her points and didn't argue about her taste preference. I did go on to tell her that organic production requires much more land and that many undeveloped forest acres would need to be converted to farmland to meet our population's agricultural needs. She seemed to listen and ultimately told me that I was passionate about what I did.

Modern agriculture has a number of strong arguments to make on behalf of being the more environmentally responsible method of farming. More land will be conserved through conventional farming, thus leaving more forests for carbon sequestration. Biotech seeds are being developed that are drought-tolerant. The list is long and it feeds into what is important to U.S. food consumers, according to the IFIC study, which shows that 32 percent believe the most important aspect to sustainability is ensuring a sufficient food supply for the growing global population; 21 percent believe the most important aspect of sustainability is land and water use efficiency; and 19 percent believe the most important aspect related to sustainability is maximum output with minimal use of natural resources.

We have a great environmental message. It is a message that people want to hear. To ensure our own sustainability it is up to us to deliver this message.



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WNAAA President's Message

Jane Barber

Convention Days, Savannah Nights

"There are but two seasonal diversions that can ease the bite of any winter. One is the spring thaw and the other is the National Agricultural Aviation Association's Convention!"

This year's National Convention is being held in Savannah, Ga., December 6–9. Steeped with history and mystery, Savannah maintains a wonderful allure for everyone. The first time I was fortunate to visit this lovely city was in October of 2009 when I attended the Fall Board meetings. After we finished our sessions each day, we took the ferry across the Savannah River to River Street and spent many hours just walking around, soaking up the history and culture. I look forward to going back in December!

If you haven't made your plans to attend the National Convention, let me give you a little nudge. Did you know Savannah's earliest streets were made of tabby, a natural cement made from oyster shells, ash, sand and water? Savannah is the nation's No. 1 producer of the 3 P's— Peanuts, Pecans and Peaches. Her downtown area is the largest National Historic Landmark District in the United States. "Forest Gump," "East of Eden," "The Legend of Bagger Vance," "Midnight in the Garden of Good and Evil" and "The Return of the Swamp Thing" are among the nearly two dozen Hollywood movies filmed there. Moreover, The Pirate House, a famous Savannah restaurant, was actually a tavern frequented by pirates who sailed the Caribbean in 1794. Events at the Pirate house were the inspiration for Robert Lewis Stevenson's novel, "Treasure Island." It just does not get any better than this!

There is plenty Spanish Moss, the famous hanging plant that graces landscapes throughout Savannah, but you do not want to touch it ... it abounds with bugs and mold. The common phrase, "Good night, neighbor, sleep tight and don't let the bed bugs bite!" came from the early colonial days when the residents often stuffed their mattresses with the soft moss and would wake up irritated and itchy after the tiny bugs invaded their sleep!

You can plan a themed tour during your leisure moments. There are tours for antiques, architecture, African-American heritage, Civil War, cemeteries, ghosts, gardens and hearse tours (yes, I did say hearse, not horse). Walking tours also abound in the Hostess City of the South. If you head out on your own, you may start to notice a recurring color painted on the door frames, porches and window sills of many Savannah homes. This blue/green color, or "Haint Blue," is not aesthetically pleasing but has an important purpose—to ward off evil spirits. Haint Blue color represents water, which if you can believe it, spirits cannot pass over! The American Institute of Parapsychology¹ has officially named Savannah "America's Most Haunted City."

WNAAA has a fun and informative convention planned for all its southern belles (see pg. 28). It will still include the ever popular Monday afternoon President's Open House from 1–3 p.m. in the WNAAA President's Hotel Room. It is informal, so come as you are, have a cool one with us and relax. Let's talk about how your year was since we last visited and introduce ourselves to the new members who will become your lifelong friends.

It is very important to note that both of NAAA's convention hotels have some of the greatest spas. Enough said.

With all this excitement packed in between the NAAA sessions, trade show, auction and receptions, one thing I'm sure of, you will not lack for something to do. And who better to see it with than your old aviation friends, and the new friends you will make while attending the 2010 "Stewards of the Sky" NAAA Convention in Savannah!

¹ The study of supposed mental phenomena that cannot be explained by known psychological or scientific principles (e.g., extrasensory perception and telepathy).

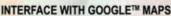
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Washington Report

EPA Pursuing the Elimination of Leaded Avgas

The Environmental Protection Agency (EPA) has released an advanced notice of proposed rulemaking (ANPR) regarding leaded aviation gasoline, or avgas. The ANPR titled "Advanced Notice of Proposed Rulemaking on Lead Emissions from Piston-Engine Aircraft Using Leaded Aviation Gasoline," describes the lead inventory related to the use of avgas, air quality and exposure information, and additional information the Agency is collecting related to the impact of lead emissions from piston engine aircraft on air quality. The ANPR did not set a date for the elimination of avgas; the Agency requested comments on the published information and the possibility of a new environmental standard associated with avgas.

In the ANPR, EPA reported that emissions from piston-engine aircraft using avgas is the largest source of lead in the air, contributing to approximately 50 percent of the national inventory of lead in the atmosphere in 2005. There are two main types of leaded avgas: 100 Octane, which can contain up to 4.24 grams of lead per gallon; and 100 Octane Low Lead (100 LL), which can contain up to 2.12 grams of lead per gallon. 100LL is the most commonly available and most commonly used type of avgas by general aviation, including agricultural aviation.

The FAA General Aviation and Part 135 Activity Survey for the 2008 calendar year indicates that avgas, which is

the Numbers

51.87 Percentage of ag aircraft in the U.S. using avgas, according to a 2008 FAA General Aviation Activity Survey

1,569 Agricultural aircraft in the U.S. using avgas, based on FAA data from same survey

1,854 Revised estimate of how many avgasfueled ag aircraft may be in use in the U.S., based on data NAAA has collected since 2004

still widely used in piston-powered engines, continues to be used in 51.87 percent or 1,569 agricultural aircraft in the U.S. except for those using fuel authorized by an STC. It is safe to say that more than half of the agricultural aviation fleet, and therefore the industry, is still largely dependent on avgas. Our own NAAA estimate is that there are 1,625 aerial application businesses throughout the U.S., and according to a 2004 survey, there were 2.2 aircraft per business resulting in a total of 3,575 agricultural aircraft in the U.S. Using the FAA estimate of aircraft propulsion type, if avgas is used in 51.87 percent, then the total could be as high as 1,854 agricultural aircraft in the U.S. using avgas.

Environmental groups have rallied behind strict avgas regulations and hope to see avgas phased out completely. Some groups have stated that they believe any aircraft using avgas should be grounded until the appropriate modifications can be made.

Background

The ANPR is in response to a petition filed by the environmental advocacy group Friends of the Earth (FOE). In 2007, FOE formally petitioned EPA to conduct a study on lead emissions from GA aircraft. The petition also requested that the Agency begin the rulemaking process to limit lead emissions from GA aircraft by considering a new emissions standard. In response, EPA published a Notice of Proposed Rulemaking regarding the National Ambient Air Quality Standards (NAAQS) for lead and requested public comments.

General aviation groups united in opposition to the notice of proposed rulemaking and argued that any change in the aviation fuel standard would have a direct impact on flight safety and the future of general aviation.

EPA proceeded to strengthen the NAAQS for lead for the first time since 1978. The new standards lowered the NAAQS by a factor of 10; this initiated a multi-year effort

Ken Degg, NAAA Director of Education & Safety

that requires state and local governments to ensure they meet these new standards by 2017.

Congress passed the Clean Air Act in 1970. In the following years, EPA set standards to gradually reduce that amount of lead in gasoline. As a result, lead emissions from the transportation sector declined 96 percent between 1980 and 2005.

The Importance of this Issue to Aviation

NAAA's primary concerns are with the safety and feasibility issues associated with a mandated shift from avgas.

Approximately 30 percent of piston-powered aircraft in the United States could not operate safely on a fuel with a lower octane level than avgas. At this point, no suitable alternative to avgas exists. Although the automotive industry has been able to move away from leaded fuel and make a shift toward alternative fuels such as ethanol, the same fuel transition cannot be as easily accomplished with aircraft. Ethanol, along with many other alternate fuels, is not suitable for use in aircraft. The Aircraft Owners and Pilots Association (AOPA) noted that adding ethanol to aviation could lead to vapor lock, cause corrosion, possibly introduce water into the fuel system and reduce the energy content of the fuel. AOPA has asked EPA to account for the cost and safety issues involved with removing lead from avgas.

AOPA indicated that piston-powered aircraft produce "one-tenth of one percent" of national lead emissions.

NAAA urged the Agency to consider the cost burden and overall effect on the aviation industry before imposing any new regulations regarding avgas. NAAA emphasized that any mandated fuel requirements for new aircraft should be streamlined to be compatible with existing aircraft, since fuel retailers will feel pressured to distribute the newly mandated fuels. NAAA also believes that mandating a change in fuel should be processed through the FAA, since it will be a flight safety issue. The FAA's extensive approval process will be needed to determine that new fuel mandates and/or equipment are safe for aircraft.

The Future of Piston Aviation

The search to find a suitable replacement for avgas has been ongoing for at least the past 20 years. Finding a fuel that is environmentally friendly, while maintaining aviation safety, economic feasibility and satisfying a range of GA stakeholders—from pilots, to manufacturers, to fuel distributors—has proven to be a difficult task.

One alternative that has gained traction is the 94UL fuel that Teledyne Continental Motors, a major manufacturer of aircraft piston engines, is pitching as a replacement for 100LL avgas. According to a company representative, 94UL is essentially 100LL without the tetraethyl leaded added as an octane enhancer. He stated that engines certified to operate on 100LL will have no trouble making rated power with 94UL. Continental is currently pushing forward for approval for 94UL, although at least two years of further testing are anticipated.

However, Lycoming, another manufacturer of horizontally opposed piston engines, disagrees with Continental's push for 94UL. Lycoming's GM, Michael Kraft, said that certifying 94UL as the avgas alternative would be a huge mistake that would cost the industry billions of dollars. He explained that most owners and operators don't understand how significantly performance can be diminished by 94-octane fuel. Lycoming believes that unleaded, 100-octane fuel is achievable, and wants to see research and resources aimed toward such a goal.

NAAA has encouraged the Agency to allow the time for and devote resources toward the development of a suitable alternative to avgas. NAAA urged the Agency to consider the detrimental economic impacts that could occur should avgas be phased out prior to the development of a safe and practical alternate fuel.

While NAAA supports the Agency's efforts to reduce lead emissions, the Association is urging the Agency to proceed in a manner that protects the safety, efficiency and livelihood of general aviation. NAAA will keep its membership up to speed as the Agency proceeds with this issue.



The journey from seed to harvest is fraught with obstacles for cotton growers. Even after multiple herbicide and insecticide treatments, cotton's crucial defoliation stage remains. It takes a great deal of skill on the aerial applicator's part to deliver the goods when it comes to applying a defoliant.





"We're joined at the hip. We can't grow cotton in my part of the world without aerial applicators."

—Texas farmer John Barrett, who grows about 1,800 acres of cotton a year in the coastal bend of Texas, near Corpus Christi

s a fiber, cotton is so ubiquitous that Cotton Inc. dubbed it the fabric of our lives. The natural fiber is present in everything from clothing to sheets to bath towels. Cotton is also an important food and feed crop.

Aerial application plays a critical role in the growth and harvesting of cotton, so much so that without it, it is fair to say Cotton Inc. would have to scrap its famous slogan in favor of far more modest claims. Growers and aerial applicators alike agree that cotton would be impossible to produce on a mass scale without aerial support throughout the growing season.

Cotton requires a lot of attention by air," said 2001-2002 NAAA President Pat Kornegay, Operator of Sun Valley Dusting Co. in San Benito, Texas. From insecticide applications to fertilizers to growth regulators, "there's a lot of different things you can do to cotton, so there's always been a lot of aircraft working in the Cotton Belt."

"They couldn't farm without airplanes or they would be out of business. There's no way they could do it without them," said Operator Reid Potter, of Lakeland Dusters Aviation in Corcoran, Calif. "There's several key factors. No. 1 is time. At 10 o'clock in the morning, I might have 2,000 acres to do. [Meanwhile, farmers and crop

consultants] are all out checking fields. By 3 o'clock I've got 12,000 acres to do. They've got a fire out there they've got to put out today. The planes can get across 12,000 acres in one night. Whereas if they're trying to facilitate ground rigs to do that volume in that amount of time, it would never happen. The crop would be half gone by the time the ground rigs got across it."

"Farming cotton in our area would quickly become uneconomical," said Erik Hansen, a grower in California and partner in Lakeland Dusters Aviation. Hansen Ranches grows 5,000 to 10,000 acres of cotton (primarily Pima cotton) each year.



Operator Dan Kubal of Kubal's Aerial Spraying Inc. treats a cotton field in Levelland, Texas.



From insecticide applications to fertilizers to growth regulators, cotton requires a lot of attention by air. "Any crop duster you talk to, if their growers aren't growing cotton anymore, they'll tell you they miss cotton," Reid Potter, of Lakeland Dusters Aviation, said.



Joe Harris and Nolan Avila, two longtime pilots with Lakeland Dusters Aviation, fly in tandem over a recently defoliated cotton field.

"Cotton's impact on aerial application is a long-running affair from the 1920s to the present," Pat Kornegay said. "Times have changed, techniques have changed and generations of pilots and innovators have come and gone, but the temperate regions that are conducive to cotton growth and a crop that requires a lot of attention by air has, to a great extent, fostered the development of our industry."

"We're joined at the hip," Texas farmer John Barrett agreed. "We can't grow cotton in my part of the world without aerial applicators." Barrett and his wife Debra own Barrett Ag, a 3,600-acre farm in the coastal bend of Texas, near Corpus Christi. They grow cotton and grain sorghum on a 50/50 crop rotation, typically producing 1,800 acres of cotton a year.

An Affair to Remember

As essential as aerial application is to cotton, what is equally true is how important cotton has been to the agricultural aviation industry historically and continues to be. It's hard to imagine where one would be without the other.

"Cotton's impact on aerial application is a long-running affair from the 1920s to the present," Kornegay said. "Times have changed, techniques have changed and generations of pilots and innovators have come and gone, but the temperate regions that are conducive to cotton growth and a crop that requires a lot of attention by air has, to a great extent, fostered the development of our industry."

In 1922, Curtiss Jenny biplanes were used to dust cotton fields near Tallulah, La., to control the bane of cotton, boll weevils—a pernicious beetle that averages six millimeters in length and feeds on cotton buds and flowers. According to the Smithsonian Institution's National Air and Space Museum, Dr. B.R. Coad, a government entomologist, originated the idea that dusting boll weevils would be more efficient if it could be done from the air rather than from mule-drawn wagons. Those initial trials with the Curtiss Jennys convinced Coad that researchers were on the right track, but also highlighted the need for an aircraft specially designed for crop dusting. Enter Huff-Daland Dusters Inc.—the

forerunner of Delta Air Lines—formed in 1923. In 1924, the company used a converted biplane to perform the first commercial dusting of crops in cotton fields around Macon, Ga. The new ag plane quickly acquired the nickname the "Puffer," an image Huff-Daland incorporated into its logo.

"Airplane technology, spray system technology, dispersal systems, GPS—most of these things were born in the South and cotton's been kind of a motivator for that development," Kornegay said. "On a per-acre basis cotton and rice require more applications than any other crop, so a lot of the advances in our industry have come out of the cotton and rice fields of the South and the West, Arizona and California."

The Cotton Belt

According to the National Cotton Council of America, cotton is grown on more than 18,000 farms in 17 states spanning the southern half of the United States. The Cotton Belt stretches from Virginia to California, but no state grows more cotton than Texas. Planting begins as early as Feb. 1 in South Texas and as late as June 1 in northern areas of the Cotton Belt.

Each region has its own unique weather patterns, insect pressures and growing schedule that affect the type of aerial application services rendered. Likewise, there are different varieties of cotton. Regardless of what type and where it is grown, growers rely on aerial application from the beginning of the planting season to the end when it is time to defoliate, as well as before and after the growing season.

San Benito is located in the southern tip of Texas in the Lower Rio Grande Valley, which is where the first cotton crop is harvested in the United States each year. "By mid to late June we usually get the first bale of cotton," Kornegay said.

Cotton season starts for Sun Valley Dusting in January and February when Kornegay does pre-plant herbicide applications and burndown—"cleaning winter weeds out of the fields prior to cotton planting and preparing the soil with pre-plant herbicides."

Located in central California, more cotton is grown in Corcoran than anywhere else in the state. Cotton planting begins around March 15, but the work for Lakeland Dusters begins in January as well. "We do typically two herbicide applications for weed control prior to planting, mainly because it's too wet to get on them with the tractor," Potter said.

"In January we usually go over all the cotton ground with some sort of contact herbicide, and then we'll come back and do pre-emergent. Not on all of it, some of it. It just depends on the variety that they're growing."

That's the extent of the cotton spraying Lakeland Dusters does until mid to late June. "That's when the ground rigs can't get in because basically the plants are getting too big, and they don't want to damage the plant," Potter said. The fact that farms are on an irrigation schedule and the fields are wet also restricts the use of ground rigs.

Similar to other operations, Potter's business really picks up over the summer months, from late June through August. About 50 percent of the total acreage Lakeland Dusters services for the year is treated in that two-and-a-half-month stretch.

Time Flies

Some aspects of cotton spraying are planned out ahead of time. For instance, the decision to defoliate is based on crop maturity and harvesting capability. However, most of the work during the growing season is requested on short notice. "The midseason

insecticide applications are ad hoc," Kornegay said. "You've just got to get after them when they're out there."

"When I have a pest problem, I want it taken care of ASAP, and an operator like Ed Shores can get that done," said Barrett, who has been a longtime customer of Shores Ag-Air Inc. (Robstown, Texas).

Rapid response has always been one of the aerial application industry's best calling cards. "The biggest thing we have to offer is time, the ability to get control of problems fast," Potter said.

Adds Kornegay, "Where aerial application comes in is on all of these things—from insecticides to growth regulators and defoliants—timing is critical. Especially in regard to herbicides and defoliants, timing and coverage are critical."

Different insects affect cotton at different growth stages. In Texas, Kornegay sprays for flea hoppers, boll weevils, spider mites, aphids, boll worms and tobacco budworms. "As the crop matures, we'll start doing pre-harvest treatments of boll openers and defoliants to cause the plant to drop its leaves so that this can be harvested" (for more on defoliation, see sidebar on pg. 16).

Lakeland Dusters has done fewer pest treatments on cotton over the last few years, something Potter attributes to acreage being down, less insect pressure and the fact that growers are using more eco-friendly insecticides that do not harm beneficial insects. Lygus, worms and aphids are the primary pests that can wreak havoc on central California's cotton crop, but the severity varies from year to year.

"My experience is you have one year in five that's heavy on bugs," Potter said. "'05 was a big one.'04 was so-so and '06 was so-so, and '07, '08 and '09 have been really pretty slow. This year, everybody

thinks it's going to be a heavy bug year, just because we've had more rain than normal. When it rains into the spring typically the weeds in the foothills will stay green and it gives the lygus a host to survive until the cotton is big enough to feed on. The hills will dry down and then they migrate."

Kornegay isn't big on predictions, even after 36 years of ag aviation experience. "I've flown a lot of different cotton seasons both here in Texas and in Mexico and in Central America, Nicaragua specifically, back in the

'70s where I'd fly two different cotton seasons a year. Every area is unique and the insect pressures are different. What I'm telling you is that after all that experience, I sure can't outguess a season. I can't tell you beforehand whether it's going to be good or bad or indifferent because the conditions change."

But it's not just harmful insects that farmers look to aerial applicators to curtail; they also rely on ag planes to keep the height of the cotton plant under control by applying a growth regulator or growth inhibitor. Cotton growth regulators usually contain Mepiquat chloride or Mepiquat pentaborate. "What it does is it causes the cotton to channel its development energy into fruit development instead of stalk development," Kornegay said.

In some cases, too much moisture or certain insect infestations can cause cotton to go out of bloom and start growing a tall stalk. This diminishes fruit production and makes it very hard to defoliate. Even more problematic, if the cotton plant gets too tall and heavy rainfall occurs, the bolls will rot before

Aerial Artistry

Ag Pilots' Work is on Display During Cotton's Crucial Defoliation Stage

Even after multiple herbicide, insecticide and growth-regulator applications, farmers aren't out of the woods when it comes to protecting their crop—nor is the cotton out of the fields. Defoliation is a procedure performed immediately prior to harvest. For a high-input crop like cotton, deciding exactly when to defoliate and doing it well is a make-or-break step.

"If the crop is defoliated too soon, yields, quality and profits suffer," the Mississippi State University Extension Service has written. On the other hand, if they choose to delay defoliation, farmers risk exposing themselves to late-season insect problems and adverse weather conditions, such as hurricanes in the South, which could affect yield and profits.

Defoliation can be done using aircraft or ground rigs, depending on the soil conditions and the amount of row space between the cotton. Narrow-row cotton has to be done by air. Wide-row cotton (38-inch rows) can be done with a ground machine if the soil conditions

are dry enough. "If it's not, I never hesitate to use an airplane," Barrett Ag owner John Barrett said.

As ground rigs have gotten bigger and more technologically advanced, most medium to large growers are using them "to a certain extent," Sun Valley Dusting Co.'s Pat Kornegay said. "But when you have irrigated or wet fields and insect infestations that require immediate attention, they still turn to the airplane to do it."

Growers could use ground rigs for defoliation, but in central California they don't like to because it will knock bolls off and reduce yields, said Reid Potter of Lakeland Dusters Aviation.

"When you have large acreage that has to be sprayed repeatedly, it's faster and more efficient with airplanes," Kornegay said.

Out With the Green, In With the White

Before cotton can be harvested, a chemical defoliant is used to force

the leaves off the plant and halt the cotton's development.

"The defoliant serves two purposes. No. 1 is to knock the leaves off so that it doesn't stain the lint when they go through and pick it. If the leaves are green when the machine goes through and picks it, it will stain the lint green," Potter said. "Secondly, there's always a few bolls on the tops of the plants that are not quite mature or they don't want to open, so they'll use Cotton Quik or Prep to open the bolls on the top of the plant so they can be harvested on the first pick."

In Texas, defoliation typically occurs in August. In California, the process from planting to harvest starts and ends later, which means defoliation doesn't begin until September. Lakeland Dusters starts defoliation around Sept. 22.

"The plant would defoliate itself if you could wait until November, but the problem is it rains in November, and then they lose grade," Potter said. "The ability to defoliate it in September gives them about three weeks, four weeks jump on

they open. "That's a critical thing," Barrett said. "If we don't keep our heights under control, we can lose our whole crop to boll rot."

Left unchecked, they can grow as high as six feet tall. Barrett doesn't like to see them over 40 inches tall. When the cotton first starts to square, he exposes it to a low dose of growth regulator as a precautionary step. "We like to get the cotton plants acclimated to the chemical," he said. "If it doesn't ever rain again you don't have to put on any more, but if rains 10 inches in two

weeks like I just experienced, you're putting it on every four or five days."

The Price of Progress

The availability of *Bt* cotton and the success of the Boll Weevil Eradication Program are two factors that have dramatically altered the scope of cotton production for growers.

The National Boll Weevil Eradication Program "ranks close to Eli Whitney's invention of the cotton gin as one of the greatest advancements ever for the U.S. cotton industry," the Cotton Council declared on its Web site.
Aerial applicators were vital to the program's success. "That would not have happened without aerial applicators," Barrett said. Boll weevils have been eliminated across the Southeast in Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Tennessee, Missouri, Arkansas and Mississippi. The cotton-loving critters remain in Texas, which has its own eradication program in place.

Bacillus thuringiensis (Bt) is a sporeforming bacterium that produces

harvesting. And again, if they couldn't defoliate, they're out of business."

Unlike some other applications, it's easy to assess how good a job the aerial applicator did when applying the defoliant to cotton because the results are plain to see. "When you defoliate cotton it's like painting," Kornegay said. "If you make a mistake, it shows up right away. You've got to do good, precise, clean work. You've got to have a well-calibrated spray system that's going to give you the pattern that you need."

"That's one of the things that we do that you can go back in a few days and see what you did," Hale Dusting Service's Randy Hale said. "The cotton goes from being a green lush crop to nothing but white in about a week. It's kind of neat."

"For us aerial guys, the challenges are corners that have wires in it and obstacles in the field," Hale continued. "When a customer asks you to defoliate his cotton he wants all of it defoliated. He doesn't want one corner green."

It's all about going white, not green, with cotton. "Green leaves on cotton when you harvest it with mechanical harvesting equipment will stain the cotton. Dried leaves that have not



Unlike some other applications, it's easy to assess how good a job the aerial applicator did when applying the defoliant to cotton because the results are plain to see.

fallen off the plant will get trash in the cotton. They call it pin trash. Bolls that are not completely open can cause tagging," Kornegay said. "All you want left is the cotton, so you apply defoliants and ripening agents to bring it to its complete maturity."

Defoliation should begin when about 70 percent of the bolls are open and the cotton is fluffing out, according to Kornegay.

In addition to saving time, coverage and penetration are two more advantages to aerial application. Penetrating the crop canopy can be an issue when defoliating tall, heavy cotton. That's where an

operator's equipment and experience come into play.

"While higher volumes of water, say, five to ten gallons per acre, have in my opinion showed no improvement in defoliation, we have found that the use of heavier airplanes that displace more air down into the crop have a marked advantage," Kornegay said. "When we moved from the smaller, lighter aircraft to the heavy low-wing monoplanes like the Thrush and Air Tractor, the quality of defoliation in heavy, irrigated cotton improved. Also the constant cord wings make for a more even pattern and uniform penetration into the crop canopy." —J. C.



Pat Kornegay knows cotton. Besides treating cotton fields by air for the past 36 years, he and his wife Teresa grow their own cotton. The field they are standing in is ready for harvest.

crystals protein, which is toxic to many species of insects. It was introduced as a genetically modified crop for cotton in 1996. Data compiled by the University of Arizona from 1999–2001 show the use of *Bt* cotton decreased the need for foliar spray on pink bollworm drastically and requires less foliar spray, overall, compared to acres with no *Bt* cotton and acres with a combination of *Bt* cotton and non *Bt* cotton.

"This year, we've probably sprayed twice as much Milo as we have cotton," said Randy Hale, operator of Hale Dusting Service Inc. in Banquete, Texas, and NAAA's president in 2006. "Seventy percent of the cotton we have here is *Bt* cotton, which doesn't require as much spraying."

While the use of Bt cotton may have cut down on the number of aerial applications in some respects, that doesn't mean aerial application is any less important. On the contrary, cotton has gotten so expensive that farmers are eager to protect their investment at every turn.

Technological advances available to the cotton farmer have led to higher yields, but the up-front costs have gotten to the point where growers are investing a significant amount of money just to get the cotton seeds into the ground. Barrett estimates it can cost \$150 an acre or more to plant the seeds. As the stakes go up, so does the need for aerial application.

"When you have that much money at risk it would be crazy to not spray your crop in a timely fashion while you were waiting for the ground to dry up so you could protect your investment in a ground machine," he said.

Kornegay said the amount of work he does with cotton remains about the same, but the type of spraying is different. "Since we've had boll weevil eradication programs and genetically modified crops, the applications that we do have changed," he said. "There's been a lot of change in chemistry over the last 20 years, so that's changed the type of the products we use and when we use them and what we use them for. But we're still flying over the cotton several times a year."

Economic and Planting Forecast

Whether an aerial applicator is hired to control pests, apply growth regulators or perform defoliation, the overriding purpose is the same: to protect the farmer's investment and get the product to market. The cotton market is heavily tied to the national economy.

Technological advances have led to higher yields, but the up-front costs have gotten to the point where cotton growers are investing a significant amount of money just to get the seeds into the ground. As the stakes go up, so does the need for aerial application.

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Rapid response has always been one of the aerial application industry's best calling cards. "The biggest thing we have to offer is time, the ability to get control of problems fast," said Operator Reid Potter, of Lakeland Dusters Aviation, Corcoran, Calif.

Barrett, a fifth-generation cotton farmer, said, "I have my concerns along with many others about the future of the national economy and what that can do to the demand for cotton products in the United States. The main thing is the farmer has to make money for the applicator to have business, so we're all in the same boat here."

When the Cotton Council issued its economic outlook for U.S. cotton back in February, it projected that 2010 would be a year of "recovery" for the U.S. cotton industry. Demand for cotton is improving, the Council reported, after a sharp downturn in 2008, and the Council's annual survey of acreage intentions indicated that more cotton would be planted across the Cotton

Belt, reversing three years of decline. Results, collected through mid-January, "indicate that growers will plant 10.1 million acres of cotton," 10.3 percent more than in 2009, with all regions expected to increase cotton acres.

That's good news for aerial applicators. Sun Valley Dusting works year-round, services more than 20 different crops, including sugarcane, grain sorghum, corn, citrus, soybeans, wheat and vegetable crops, and may cover anywhere from 150,000 to 300,000 acres a year. Of that acreage, "probably 70 percent of our work is related to cotton," Kornegay said.

When the harvest is over, Sun Valley Dusting will sometimes spray for boll

weevils to kill any remaining weevils that would affect the following year's crop. This is known as a diapause application. Kornegay continues to apply herbicide applications throughout the fall to keep the fields clean and weed free, proving that cotton is the commodity that keeps on giving.

Cotton is a huge part of Potter's business as well. "You're going to go over cotton ground eight times over the course of a year versus, say, six on any other crop," he said. "I'm counting herbicide applications and defoliation applications, because we do two defoliation applications in September/ October. That basically is our last quarter. ... The tomatoes are done, the alfalfa is done for the most part, so all we've got is cotton."

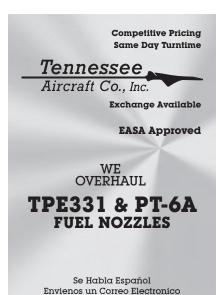
Not that Potter is complaining. The fabric of his business is closely linked to cotton. Lakeland Dusters works 12 months out of the year and has 25 full-time employees, including six pilots who fly five 500-gallon Thrush aircrafts and 19 shop, ground and office personnel, including Potter, who runs the operation from Lakeland Dusters' headquarters but does not fly himself.

"Any crop duster you talk to, if their growers aren't growing cotton anymore, they'll tell you they miss cotton," Potter said. There are different herbicides for tomatoes and different ways of controlling the insect pressure. "They don't have the insect pressure that cotton does, and you don't defoliate it. In September, they're gone, they're harvested. Whereas, cotton doesn't come off until mid October so they have to defoliate it. So it gives us another job in the fall. That's big. That's real big. If we didn't have cotton here, this company would change—big."



WHAT A PEST Although the cotton-loving critters still remain in some states, the threat of boll weevils has been greatly reduced thanks to success of the National Boll Weevil Eradication Program and the role aerial applicators have played in eradication efforts.





erikagriffin@comcast.net



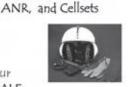


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NAAA ANNUAL CONVENTION & EXPOSITION

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NAAA's Savannah Convention Shaping up Nicely

hile many readers have been running hot and heavy during the height of the ag spraying season this summer, NAAA and its partners have been busy making preparations for the granddaddy of all conventions, NAAA's 2010 Convention & Exposition. The world's largest agricultural aviation convention and trade show is heading to Savannah, Ga., for the first time this December. If attendee registration keeps pace with the strong early demand from NAAA's exhibitors, sponsors and auction contributors, NAAA's Southern adventure should be a smash hit. Online attendee registration opened in mid August at www.agaviation.org. All indications so far point to sky-high interest in the convention.

Whether you are a newcomer to the industry or have been attending for years, you'll find much to savor about NAAA's Savannah Convention experience. The educational sessions, networking opportunities and exposure to the latest products, research and technological advancements in aerial application, set in an exciting new location, represent the perfect combination—part business, part pleasure and

all good. NAAA chose "Stewards of the Sky" as this year's theme because agricultural aviation and environmental stewardship go hand in hand. The convention will celebrate the work that aerial applicators and the people that support them carry out every day by ensuring that the benefits of America's agriculture remain plentiful while protecting and preserving the nation's natural resources for future generations.

The city of Savannah is rolling out the red carpet for NAAA and its guests. We hope to see you there Dec. 6–9!

Executive Privilege

Who better to open the convention than a true steward of the sky, albeit a steward of a different sort? Howie Franklin will be the keynote speaker for NAAA's Kickoff Breakfast. Franklin served and flew with five presidents on Air Force One and is the only person to do so. Serving in the United States Air Force as the head flight attendant for Air Force One is quite different from how we normally perceive that job title. Franklin had many important responsibilities dealing with security, critical timetables, unusual requests and specific details. He was on hugging

terms with most of the first families and saw them at the best and worst of times.

From his fly-on-the-wall vantage point, Franklin will offer attendees an insider's perspective, sharing details about the unique characteristics of Air Force One planes and tales about the powerful and famous passengers he had the privilege of serving over the course of five administrations. He has hundreds of fascinating and funny stories about the presidents and dignitaries he served, and always speaks with the greatest respect. Howie Franklin spent 29 years in the Air Force, including 18 years on Air Force One. After retiring from the Air Force, he became the airport manager for the Brunswick County Airport in southeastern North Carolina.

Be sure to register for the Kickoff Breakfast when filling out your registration form.

Your Education Destination

You won't need a "permit" to attend NAAA's General Session Dec. 7, but when it comes to making pesticide applications over or near water, that all changes beginning in April 2011. That is when the EPA's and a number of state

water agencies' new NPDES permitting system go into effect. This is the biggest issue to affect the aerial application industry since 9/11. Costly and cumbersome though they may be, the new system goes into effect whether we like it or not. All aerial applicators need to learn as much as possible about the EPA's new permitting system before it goes into effect to avoid sanctions later. NAAA is assembling a panel of speakers to shed details on how the new NPDES permitting system will affect the aerial application industry and help guide attendees.

Other topics on the agenda for the General Session include an analysis of the Endangered Species Act (ESA) and how court decisions involving the ESA are resulting in significant buffer zones. An FAA medical examiner is also on the docket to answer the audience's medical questions.

Concurrent/Company Sessions

Several "Concurrent and Company Sessions" are spread throughout the 2010 NAAA Convention Schedule. Concurrent Sessions are organized by NAAA with particular assistance from its Allied Industry Committee to provide information of general interest to the aerial application industry. Company Sessions are put on by individual companies to showcase their particular products and services. Check the schedule on pg. 29, and plan to attend as many of these sessions as possible.

- Aerial Firefighters Session
- Air Tractor Inc. Session
- Application Technology Session
- Chemical Session
- Compaass Rose Session-new pilot mentoring session
- FAA/Security Session
- GE Turboprop Engines

- Helicopter Roundtable
- Honeywell TPE-331 Engine Session
- Pratt & Whitney Canada–Piston Engine Session
- Pratt & Whitney Canada–Turbine Engine Session
- Thrush Aircraft Session

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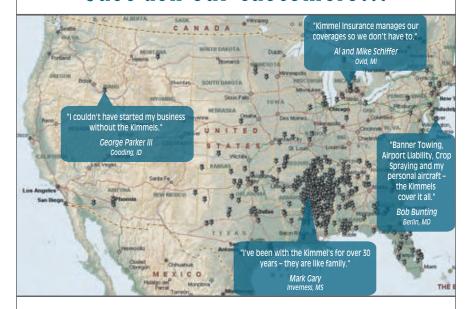
NAAA's Compaass Rose Program is designed to provide professional support and direction to prospective agricultural aviation pilots. The goal is for the participants to enhance their own knowledge, continue to

gain agricultural aviation experience, and improve their individual professionalism. Agricultural aviation pilots will have an opportunity to discuss ideas and philosophies about the business, make informed decisions about their future, and interact with some of the industry's top operators. To accommodate travel schedules, NAAA is offering two Compaass Rose sessions at opposite ends of the convention. The first session is Dec. 5, the day before the convention officially begins; the second session is Dec. 9.

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The Westin Savannah, which is adjacent to the convention center, is one of two host hotels for NAAA. The Hyatt Regency Savannah is across the river from the convention center but steps away from the entertainment district.

Your Savannah Getaway

We know many of you plan your winter vacation around the NAAA Convention. Holding the convention in Savannah offers lots to see and do! Plan to arrive a couple days early or stay a few days after the convention to take time to enjoy this unique part of America. Savannah in December ranges from an average high temperature of 62 degrees to an evening low of 39 degrees. (By the way, their average annual snowfall is one-tenth of one inch.)

Accommodations

NAAA has set up blocks of rooms at the Westin Savannah Harbor and at the Hyatt Regency Savannah for your use during the convention. Both hotels offer great rooms at the rate of \$110 plus tax.

Which to choose? Great question, since each offers a very different convention experience. First, you need to look at location. These two hotels are separated by the Savannah River. The Savannah International Trade & Convention Center and the Westin Savannah Golf Resort and Spa are on one side of the river, and the Hyatt Hotel, as well as the main shopping, tourist and entertainment areas, is on the other side.

Getting across the river is quick and easy thanks to the free ferry service that will shuttle attendees back and forth throughout the day and evening. The Bells Ferry provides water transportation from the Hyatt Hotel to the convention center and Westin Hotel. The trip takes approximately five minutes, and ferry service will be continual during our stay. Free bus service is also available for those who are not comfortable on the water.

So, do you stay at the Westin and use the ferry and bus service to go downtown for shopping, dining and entertainment, or do you stay at the Hyatt—within walking distance of the entertainment area—and take the transportation to the convention center? The choice is yours. Either way, getting around the city is easy and another unique convention experience.

Hotel Reservations:

Westin Savannah Harbor Golf Resort & Spa

912-201-2000 (use group code NAAA) www.westinsavannah.com

Hyatt Regency Savannah

912-238-1234 (use group code NAAA) http://savannah.hyatt.com

pesticide products is through the development of cutting-edge drift reduction technologies and techniques and by continually educating our nation's aerial applicators about these technologies and techniques. Examples of such technology include GPS units, electrostatic spray systems, and more effective nozzles and boom lowering systems that allow nozzles to spray closer to the crop canopy. Much of the credit for these advances goes to the American Society of Agricultural and Biological Engineers (ASABE) and its members. ASABE's researchers have has been instrumental in the industry's stewardship efforts. On Dec. 6, ASABE representatives will report on the progress of their ongoing aerial application research. Hear from top industry researchers as they share key findings and discuss a number of new aerial application technologies and techniques that help mitigate drift, conserve fuel and ensure proper crop coverage. Some states allow CEUs for these sessions. Check with your state/ regional ag aviation association.

A Buyer's Market

The exposition portion of the convention brings buyers and sellers together under one roof in the form of NAAA's Trade Show. Last year, more than 120 companies displayed the latest products, technologies and aircraft designed for the aerial application industry. One month after exhibit sales opened this year, two-thirds of the booth space has already been sold.

As part of NAAA's ongoing effort to strengthen its annual convention, the Association has selected The YGS Group to manage its 2010 Convention Trade Show. YGS will be selling exhibit space and has developed a robust exhibitor-registration Web site that will allow companies to register and manager their exhibit space online. If you are interested in exhibiting, please

contact Marshall Boomer at 800-501-9571, Ext. 123, or reserve your booth space online at www.goeshow.com/ naaa/annual/2010/.

For aircraft exhibiting, please contact NAAA's Peggy Knizner at 202-546-5722 or piknizner@agaviation.org.

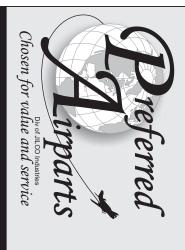
NAAA/WNAAA **Live & Silent Auction**

When it comes to high-stakes entertainment, the intrigue, drama and excitement of NAAA's Live Auction is hard to beat, which is why it has become one of the signature events at each convention. With surprise visitors

| SAMPLING OF AVAILABLE AUCTION ITEMS | | | | |
|--|---|--|--|--|
| COMPANY AUCTION ITEM | | | | |
| Pratt & Whitney Canada A United Technologies Company | New PT6-34AG Engine (0 TTSN) | | | |
| Ag-Nav Inc. | 2 Gift Certificate to be used on any Ag-Nav product or service (auctioned separately) | | | |
| Airforce Turbine Services | \$10,000 Gift Certificate toward the repair, overhaul or purchase of a PT6A Engine | | | |
| Bayer CropScience | To Scale Model of an AT-502 with NAAA Logo | | | |
| Farm Air Inc. | One pair of main landing gear for an AT-402 or AT-502 | | | |
| Genuine Aircraft Hardware Co. | Assortment of popular aluminum and plastic caps/plugs | | | |
| Lane Aviation | Ground adjustable balanced pump fan & electric brake | | | |
| Precise Flight Inc. | Model 1210 Puselite Control Unit | | | |
| Turbine Conversions Ltd. | Single Point Fueling System, approved for all Thrush, AT's, Dromader and Ag Cats | | | |
| Wings Insurance | Two people, two nights at a luxury hotel in Las Vegas (includes hosted dinner) | | | |



Pratt & Whitney Canada is providing a brand new PT6A-34AG engine for NAAA's Live Auction!



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We Buy Worldwide

ranging from Santa Claus to the "Blue Man Group" (our version), the Live Auction on "Convention Tuesday" has become a "can't-miss" event.

These frolicking festivities are very important to NAAA and WNAAA from a fundraising standpoint, so enjoy the reception food and beverages and bring your checkbooks. The live auction and a reception occur Dec. 7.

NAAA and WNAAA also hold a Silent Auction each year. Bidding opens Dec. 7 and closes on the afternoon of Dec. 8, inside the Expo Hall. Thank you to our contributors! If your company has something of value to add by all means consider contributing an item to the NAAA/WNAAA auctions. Simply complete the Auction Contribution Form available on NAAA's Web site and e-mail it to Lori.Racey@theYGSgroup.com or fax it to 717-825-2150. For additional information, contact NAAA at 202-546-5722.

Sponsorship Opportunities

Over the years NAAA has been very fortunate to be able to count on many of our Allied Industry companies to sponsor a convention program, activity or item that benefits attendees. This year is no exception, as several very generous companies have come forward to take part in our convention sponsorship program. Please thank them for supporting your convention and your association by considering their products and services for your aerial application business.

Several attractive sponsorship opportunities remain available. To learn more about becoming a convention sponsor, visit www.goeshow.com/naaa/annual/2010/.

Farewell Banquet & Awards Ceremony

Similar to past conventions, NAAA's 44th Annual Convention & Exposition begins with the Kickoff Breakfast and ends with an elegant Farewell Banquet & Awards Ceremony. It is a wonderful way to wrap up your 2010 convention experience and honor those in our industry singled out for their special achievements.

Before NAAA can give out its Annual Awards, we need you to nominate those deserving individuals. They don't need to be known at the national level. The aerial application industry is filled with exceptional individuals who go above and beyond, often with little fanfare. Tell us who they are!

The 2010 NAAA Awards Nomination Form, additional award details and a list of past winners are available in the NAAA Membership Directory and on NAAA's Web site at www. agaviation.org/content/naaa-annual-awards. Think about the special people you have known and worked with over the years and tell us why they deserve an NAAA Award. To make a nomination, fax or e-mail completed entries to NAAA at 202-546-5726 or information@agaviation.org. The nomination deadline is Sept. 10.

See you in Savannah in December!

| CONVENTION SPONSOR | EVENT AND/OR SIGNAGE | | | |
|---|---|--|--|--|
| DIAMOND SPONSORS (\$20,000 OR GREATER) | | | | |
| PLATINUM SPONSORS (\$12,000-\$19,999) | | | | |
| □ - BASF | Kickoff Breakfast, Convention Lanyards, Convention Embroided Patches | | | |
| Hemisphere | Signage, Escalator Banner, Hotel Key Cards | | | |
| GOLD SPONSORS | ; (\$7,500 – \$11,999) | | | |
| | Conference Registration Bags, Program Guide (Back Cover) | | | |
| SILVER SPONSOR | S (\$3,000–\$7,499) | | | |
| AD NAV | Registration Signage (Exclusive), Program Guide (Inside Ad) | | | |
| Covington Aircraft Engines | Aisle Signs (Exclusive), Bag Inserts | | | |
| OU PONT. | Farewell Banquet | | | |
| Southwest furbine, Inc. | Coffee Breaks | | | |
| BRONZE SPONSOF | RS (\$1,200–\$2,999) | | | |
| AgriSmart Information Systems LLC | Program Guide (Inside Ad), Golf Hole | | | |
| CHARTIS C | General Session | | | |
| Queen Bee Air Specialties Inc. | Benches | | | |
| Southeastern Aircraft Sales & Service | Window Clings | | | |
| Museum Booth | | | | |
| EMERALD SPONSORS (\$500-\$1,199) | | | | |
| Kimmel Aviation Insurance Agency Inc. Escalator Signage | | | | |
| Transland LLC | Firefighters Concurrent Session | | | |

2010 NAAA Convention Exhibitors as of 08/17/2010

| EXHIBITOR NAME | Davidon Inc. | Pratt & Whitney Canada |
|---|-------------------------------------|--|
| ACES Systems | Davidson Solid Rock Insurance | Precision Laboratories Inc. |
| Aero-Engines Inc. | DuPont Crop Protection | Premier Turbines |
| AeroFlow Systems | Dynanav Systems Inc. | Prime Turbines Inc. |
| | Evolution Insurance Brokers | Proair RRG |
| Ag Air Turbines Inc. Ag Container Recycling Council (ACRC) | Executive Aircraft Maintenance | Queen Bee Air Specialties |
| | Falcon Insurance Agency Inc. | Rocky Mountain Propellers |
| Ag-Nav Inc. | Farm Air Inc. | Rosen's Inc. |
| AgAir Update | Fire Boss LLC | S & T Aircraft Accessories Inc. |
| AgLasers LLC | Flight Grip LLC | Serv-Aero Engineering Inc. |
| AgriData Inc. | FMC Corp. | Simplex Manufacturing Co. |
| AgriSmart Information Systems LLC | Frost Flying Inc. | Sky-Tractor Supply |
| AgSync Inc. | Garrco Products | Southeastern Aircraft Sales & Service |
| Aircraft Accessories of Oklahoma | GE Aviation | Souther Field Aviation Inc. |
| Air Repair Inc. | Gibson & Barnes | Southwest Turbine Inc. |
| Air Tractor Inc. | | |
| Allianz | Hardy Aviation Insurance Inc. | Spectrum Electrostatic Sprayers Inc. |
| ApplicationMGMT.com | Hatfield/Turbine Conversions | Starr Aviation |
| APS (Aviation Products Systems Inc.) | Hemisphere GPS | Sutton James Inc. – Aviation Insurance Brokers |
| Auto Cal II | J & C Enterprises Aviation Inc. | |
| Avenger Aircraft and Services LLC | Johnston Aircraft Service Inc. | Teledyne Battery Product |
| Aventech Research Inc. | Kansas Aviation of Independence LLC | Tennessee Aircraft Co. Inc. |
| BASF | Kawak Aviation Technologies | Thrush Aircraft |
| Bayer CropScience | Kugler Company | Timken Aftermarket Solutions |
| Blue Diamond Turbine Services Inc. | Lane Aviation Inc. | Transland LLC |
| Cascade Aircraft Conversions | Leading Edge Associates LLC | Tulsa Aircraft Engines Inc. |
| Central Florida AG AERO | Machida Inc. | Turbine Dromader LLC |
| Chartis Aerospace Insurance | MANA Crop Protection | Turbine Engine Consultants Inc. |
| Services Inc. | Micronair Sales & Service Inc. | Turbine Installation LLC |
| Compton's Flying Service | Mid-Continent Aircraft Corp. | Valley Air Crafts |
| Covington Aircraft | Nation Air Aviation Insurance | Weber Aviation Insurance |
| CP Products Co. Inc. | Perkins Technologies PTY Ltd. | Western Petroleum Co. |
| Curtis Agri-Line ASC | Pickett Equipment Co. Inc. | Wilbur-Ellis |
| Dallas Airmotive | PIM Aviation Insurance | Wings Insurance |

Come have some **FUN** at WNAAA's 2010 Convention Events!

By Jayne Rucker WNAAA Convention Co-Chair

WNAAA hopes you'll join us for the activities planned for the ladies attending the 2010 Convention. Whether you're a spouse or business employee, come and enjoy the events we've got planned for you!

Monday, Dec. 6

10 a.m.-11:30 a.m.

"The Victorian Lady," Ardis Woods, will educate and entertain us about the "Ladies of Savannah." We'll hear stories, songs and ghost tales about the happenings of the Savannah of the past. She'll also give us an introduction to present-day Savannah, with information about "don't miss" things to do in this charming city.

1 p.m.-3 p.m.

"Mint Juleps, Wine & Southern Hospitality" is the theme for our President's Open House Monday afternoon. Stop in for a drink, snack and some Southern hospitality. Come join us for some lighthearted fun and visiting.



Tuesday, Dec. 7

9 a.m.-10:30 a.m.

WNAAA will be presenting an **Athena Program** again. This year's program will give you the opportunity to have some fun, share your insights into agriculture aviation and meet women who are living and working the agricultural aviation lifestyle ... JUST LIKE YOU!

10:45 a.m.-1 p.m.

Don't eat a big breakfast, because the WNAAA is treating you to an early lunch! Right after the Athena presentation on Tuesday, please join us at **Paula Deen's The Lady & Sons Restaurant**. WNAAA will provide the transportation to and from the restaurant. You **must RSVP** before the convention, due to limited seating. Please e-mail or call Jayne Rucker at ruckerfly@gbta.net or 620-525-6712.

12 p.m.-6 p.m.

Don't forget the **WNAAA Booth** on the trade show floor. We'll have new items, as well as returning favorites like the annual T-shirts and button-up shirts. There will be lots of items to help finish your Christmas shopping!

Wednesday, Dec. 8

9 a.m.-10:30 a.m.

This morning eat hearty! **WNAAA** is hosting a delicious breakfast for a very full day! Join Jane Barber as she presents her President's Awards for 2010.

After the awards, we're going on a "Museum Hop!" WNAAA has a tour lined up to go to see museums that in a former life were lovely southern homes, as well as an ultra modern art museum. Transportation is provided, so come and join us for a great time!

Thursday, Dec. 9 - FREE DAY

Take the opportunity to visit some of the exciting and charming activities Savannah has to offer. You won't be disappointed in this lovely southern city—or WNAAA's convention activities!



EVENT SCHEDULE

Join NAAA for the 44th Annual Convention & Exposition!

| Saturday, Dec. | 4 | | |
|---------------------|---|--|--|
| 6:30 p.m. | Golf Tournament Players Reception & Calcutta | | |
| Sunday, Dec. 5 | ; | | |
| 7:30 a.m. | Golf Tournament – Players Continental Breakfast | | |
| 8 a.m. | Golf Tournament – Tee Times Begin | | |
| 1 p.m. | Golf Tournament – Players Lunch & Awards | | |
| 9 a.m.–4 p.m. | Pratt & Whitney Canada PT6 Seminar CD Aviation/TECI – TPE 331 (FAA Approved IA Training) | | |
| 12 p.m.–6 p.m. | Registration Open (Convention Center) | | |
| 4 p.m.–6 p.m. | NAAA Board Meeting | | |
| 4 p.m.–6 p.m. | WNAAA Board Meeting | | |
| 4 p.m.–6 p.m. | Compaass Rose Concurrent Session | | |
| Monday, Dec. (| 6 | | |
| 7:30 a.m.–6:30 p.m. | Registration Open (Convention Center) | | |
| 8–9:45 a.m. | Kick-Off Breakfast – Howie Franklin | | |
| 10–11:30 a.m. | WNAAA Program – The Victorian Lady | | |
| 10 a.m.–6 p.m. | Canadian AAA Board Meeting | | |
| 10 a.m.–12 p.m. | ASABE Sessions | | |
| 1–2:30 p.m. | ASABE Sessions (continued) | | |
| 1–3 p.m. | WNAAA President's Open House | | |
| 1–8 p.m. | Exhibitor Setup | | |
| 2:45–4:15 p.m. | Concurrent Sessions • FAA/Security • Honeywell Engines | | |
| 4:30–6 p.m. | Concurrent Sessions • Pratt & Whitney Canada—Piston • Chemical | | |
| 6:30-7:30 p.m. | Welcome Reception | | |
| Tuesday, Dec. | 7 | | |
| 7–8:30 a.m. | CP Products Breakfast | | |
| 7:30 a.m5:30 p.m. | Registration Open (Convention Center) | | |
| 8–11:30 a.m. | Exhibitor Setup | | |
| 8:45-9:30 a.m. | NAAA Business Meeting | | |
| 9–10:30 a.m. | WNAAA Athena Program | | |

| Tuesday, Dec. | 7 con't | |
|--|---|--|
| 9:45 a.m.–12 p.m. | NAAA General Session • Clean Water – NPDES Permits • Endangered Species Act Litigation • Medical Clearance Q&A | |
| 10:45 a.m1 p.m. | WNAAA "Lady & Sons" Lunch | |
| 12–6 p.m. | Trade Show Hours | |
| 5:30–7 p.m. | Live Auction & Reception | |
| Wednesday, Do | ec. 8 | |
| 7:30 a.m4 p.m. | Registration Open (Convention Center) | |
| 8–9:30 a.m. | Concurrent Sessions • Application Technology • GE Engines | |
| 9–10:30 a.m. | WNAAA President's Awards Breakfast | |
| 10:30 a.m2 p.m. | WNAAA Museum Hop | |
| 10 a.m4 p.m. | Trade Show Hours | |
| 3 p.m. | Silent Auction Closes | |
| 4–5:30 p.m. | Concurrent Sessions • Pratt & Whitney Canada—Turbine | |
| Thursday, Dec | . 9 | |
| 8 a.m.–6 p.m. | Registration Open (Convention Center) | |
| 8–9:30 a.m. | Concurrent Sessions • Thrush Aircraft | |
| 9:45–11:15 a.m. | Concurrent Sessions • Air Tractor Inc. | |
| 11:30 a.m1 p.m. | Concurrent Sessions • Aerial Firefighting • Compaass Rose | |
| 1:15–2:45 p.m. | Concurrent Sessions • Helicopter Roundtable | |
| 3–4:30 p.m. | Concurrent Sessions | |
| 5:30–6:30 p.m. | Farewell Reception | |
| 6:30–9 p.m. | Farewell Banquet & Awards Ceremony | |
| Events schedule subject to change. Updates are posted regularly at www.agaviation.org. Watch for more schedule information on NAAA's Web site at www.agaviation.org. WNAAA events appear in bold green. | | |



Prospects and clients abound for you and your company at the world's largest trade show for ag aviation!

Unlimited networking opportunities and a great lineup of speakers and events makes NAAA's 44th Annual Convention & Expo an experience you won't want to miss.





Exhibitor and sponsorship opportunities are selling fast! Visit http://www.goeshow.com/naaa/annual/2010/to reserve your booth today!

Marshall Boomer
Sponsor/Exhibitor Sales Consultant
717-505-9701 x123
Marshall.Boomer@theYGSgroup.com
The YGS Group is a proud partner of NAAA.





NAAA Convention & Expo

Savannah, Ga. – Dec. 6–9, 2010

Pre-registration must be received by Wednesday, Dec. 1, 2010. Use this form and register today!

MEMBER REGISTRATION: You must be the designated member of an Operator or Allied Industry Company, State Association Executive, or have a Pilot, Affiliated Operator, Affiliated Allied, Associate, International or WNAAA membership in your name, or be the spouse of an NAAA member to qualify for member rates.

Registration at the convention site will cost \$50 more per person!

| NAAA Members | Registration With Banquets | Registration Without Banquets |
|-------------------------------|-------------------------------|----------------------------------|
| Member | \$320 | \$220 |
| Spouse | \$265 | \$165 |
| Child (under 12) | \$170 | Free |
| | | |
| | Registration | Registration |
| Non-NAAA Member | Registration With Banquets | Registration Without Banquets |
| Non-NAAA Member Non-member | | |
| | With Banquets | Without Banquets |

Banquets: Kickoff Breakfast and Farewell/Awards Banquet

EXTRA BANQUET/RECEPTION TICKET FEES:

NOTE: Attendance at the Welcome Reception, Auction Reception and Farewell Reception are included in your registration fee. Purchase Kickoff Breakfast or Farewell/Awards Banquet tickets only if you purchased a "without banquets" package. Purchase extra Welcome Reception and Farewell Reception tickets only for guests with no registration package.

| Farewell Reception | i tickets only for guests wi | th no registration package. | | | |
|-------------------------|------------------------------------|--------------------------------------|-------------|-------------|--|
| | Monday, Dec. 6 | Kickoff Breakfast | \$40/each | # needed | |
| | Monday, Dec. 6 | Welcome Reception | \$40/each | # needed | |
| | Thursday, Dec. 9 | Farewell Reception | \$30/each | # needed | |
| | Thursday, Dec. 9 | Farewell Banquet/Awards | \$75/each | # needed | |
| REGISTRANT: Firs | st Name | MI | Last Name | | |
| (Please print your name | e as you would like it to appear o | on your convention badge.) | | | |
| Company | | | Phone | 9 | |
| Address | | City | | State Zip _ | |
| Country | Fax | Email | - | | |
| SPOUSE REGISTE | RANT: | | | | |
| | ou would like it to appear on co | | | | |
| ADDITIONAL REG | SISTRANTS: | | | | |
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| PAYMENT: | | | | | |
| Registrant Fee | \$ | _ Credit Card | or C | Check # | |
| Spouse Fee | \$ | Card# | | | |
| Add'l Registrants | \$ | | | | |
| NAAA Dues | \$ | Address | | | |
| Banquet Tickets | \$ | | | | |
| TOTAL DUE | \$ | | | | |
| ALC funda anti-must | | "Cinnatura in narrainaina ta hill Cu | adit Cand " | | |

Mail payment and registration form to: NAAA – 1005 E Street SE – Washington, DC 20003 Print registration form at www.agaviation.org – Fax 202-546-5726 – Questions? Call 202-546-5722 E-mail information@agaviation.org. Online registration is available now at www.agaviation.org.

Participate in the 2010 AgAv PAC Golf Tournament

Don't miss your chance to participate in the AgAv PAC Golf Tournament at the 44th Annual NAAA Convention & Exposition in Savannah, Ga. The PAC is used to strengthen NAAA's presence in Washington, D.C., by supporting congressional candidates friendly to the aerial application industry. So enjoy a round of golf to support the PAC and benefit the industry!

The tournament will be held at the luxurious Club at Savannah Harbor. The club lies nestled between the banks of the Savannah and Back Rivers among the abundant wildlife of the splendid Georgia Low Country, offering views of historic downtown Savannah while it gently winds its way through tidal wetlands. The Club at Savannah Harbor offers an 18-hole championship course designed by renowned architect Robert Cupp in conjunction with the legendary "Slammin' Sammy" Snead. The Club was recently named one of the "Top 60 Golf Resorts in the United States" by *Conde Naste Traveler* magazine and awarded a "Four Star Highly recommended Places to Play" by *Golf Digest*.

The golf tournament will be a four-member team scramble on Sunday, Dec. 5, with an 8 a.m. shotgun start. We recommend that golfers plan to arrive in time to participate in the pre-tournament reception and Calcutta on Saturday,

Dec. 4, at 6:30 p.m. The Club at Westin Savannah Harbor has clubs for rent (Diablo woods, X 22 Irons, + 6 Calloway balls) for \$50. If you will need to rent clubs, please contact the pro shop at 912-201-2240.

The NAAA Convention Golf Tournament Registration Form is required for each entrant. ■



The Westin Savannah Harbor Golf Resort & Spa features the Robert Cupp/Sam Snead Championship Golf Course.

NAAA AgAv PAC Golf Tournament Registration Form

Golf Package Name: ______ E-mail: ______ Golf Handicap (your golf score on a 72-par golf course): _____ Meal Package Name: _____ Payment: Amount: _____ Choose one: Check ____ Credit Card ____ Card #: _____ Exp. Date: _____ Name on Card: _____ (signature gives permission to bill)

Please make checks payable to AgAv PAC

** All proceeds go directly to AgAv PAC. Federal law requires all PAC donations to be **personal** contributions. Corporate contributions are prohibited. PAC donations are not tax deductible.

Payment must be made by **personal** check or **personal** credit card only. **

Send entry forms and payment to NAAA by fax at 202-546-5726, e-mail at information@agaviation.org or mail at: NAAA • Golf Tournament • 1005 E Street, SE • Washington, D.C. 20003

Tournament Schedule:

Saturday, Dec. 4
6:30 p.m. – Reception & Calcutta
Sunday, Dec. 5
7:30 a.m. – Continental Breakfast
8 a.m. – Tee Times Begin
1 p.m. – Lunch & Awards

Package Costs:

\$200 – Golf Package (per player)
Includes greens fee, Saturday reception and
Sunday breakfast and lunch.

\$100 – Meal Package (for non-player attendees)

Includes Saturday reception and Sunday breakfast and lunch.



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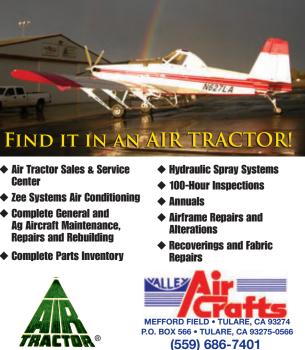


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NAAA Unveils New and Improved Web Site

By Jay Calleja Manager of Communications

AAA is pleased to announce the premiere of our new Web site. The new-look, totally redesigned www.agaviation.org debuted Aug. 16. The launch culminates over a year's worth of planning and preparation and ushers in an exciting new era as NAAA strives to raise the profile of the Association and the industry by way of its new Web site and future online endeavors.

- Need to find something fast? The online Member Directory, Site Map, site-wide search box and more are located in the upper right corner of every page.
- The navigation pane at the top of every page is divided into 10 sections, including four main "business drivers" for Policy Initiatives, About Ag Aviation, Membership and Careers. The added text for the business drivers on the home page provide a quick introduction to NAAA and the aerial application industry.
- The new Web site is multimedia! NAAA's "Growing Role" video is featured prominently throughout the site.



From the home page forward, NAAA's new Web site effectively conveys who we are as industry, what aerial applicators do and what we do as an Association to serve our members.



Content inside each section of the Web site is classified either as primary content located in the Table of Contents on the left or Related Content, which appears on the right side of many pages throughout the site.



An arrow next to a section in the Table of Contents box means additional content is available. The subsections in the Table of Contents will expand and collapse to reveal and hide content as users navigate between subsections.



Printable forms, general event information and other associated content that resides in another section of the site all may appear as Related Content.



Visual Appeal: From the home page forward, the new Web site is visually appealing and effectively conveys who we are and what we do in the blink of an eye. NAAA may be the "voice of the aerial application industry," but the public hasn't fully caught on to the industry's terminology. Oftentimes a quizzical look crosses people's face when the topic of aerial application comes up in non-agricultural settings. "Crop dusters" registers but doesn't strike the right chord in the age of modern, precision agriculture. The new Web site paints a picture that vividly portrays the importance and professionalism of the aerial application industry in a matter of seconds.

Having NAAA's "Aerial Application's Growing Role" video available for viewing directly from the new Web site further enhances NAAA's visual communications. The video, which is also available on YouTube, appears



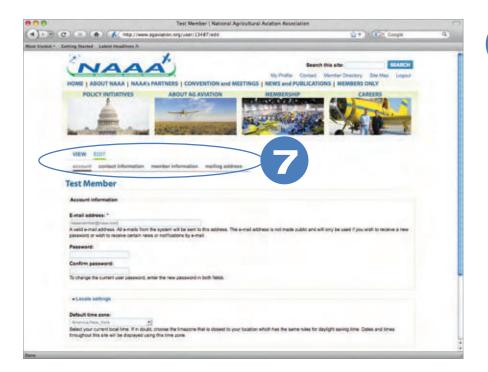
prominently on the home page and in the About Ag Aviation, About NAAA, News and Publications and Careers sections of the new site.

One Mission Serving Many
Purposes: NAAA's Web site serves
multiple purposes, including to
promote the industry, market the
Association, inform members about
programs and services and educate the
public about the importance of aerial
application. While the current site
addresses all these aspects, NAAA has
greatly enhanced the look and the feel
of the new Web site by reorganizing
existing content, identifying new
content needs and weaving the
mission of NAAA throughout the
Web site. The new site boasts...

Improved Organization, Better
Site Navigation and New Search
Capabilities: Users should find what
they're looking for quickly and easily
on the new Web site. The navigation
pane at the top of each page will aid
users as they maneuver from section
to section. NAAA added some new
features that appear in the top right

corner of each page. Access to the Login and "My Profile" pages, the online Membership Directory and a comprehensive Site Map are always just a click away. Another useful addition is a search box at the top of each page, which delivers Google-type search results for content on the site.

Although the new Web site should be intuitive to users in many respects, there are a few things to keep in mind. Once you move from the home page to a particular section of the site— NAAA's Policy Initiatives section, for example—a variety of information will be available. Using the Table of Contents bar on the left side of the page, users will be able to move from one area of Policy Initiatives to another and access additional information inside these sections. If you see an arrow next to a section, it means additional content is available. The subsections on the Table of Contents bar will expand and collapse to reveal or hide content as you move from subsection to subsection (e.g., from the environmental policy section to the towers policy section).



Members can manage their account information by clicking on the "My Profile" link in the upper right corner and selecting "edit." There are four "Profile" categories members can manage: account, contact information, member information and

mailing address.

Another smart feature is the new Related Content box that appears along the right side of the screen on many pages throughout the site. Examples of Related Content include printable forms and PDF files, as well as associated content that resides in another section of the site but relates to whatever page you are currently viewing.

Power to the People! With NAAA's new site, members can change their

passwords and manage their account information completely by clicking on the "My Profile" link in the upper right corner of any page. There are four "Profile" categories you can manage: account, contact information, member information and mailing address. This is more efficient and accurate than e-mailing or phoning NAAA with address or phone number changes, although you are welcome to do so if you prefer. However, NAAA's

office will no longer be able to reveal forgotten username and passwords or reset them for you. If you forget your password, the new system will automatically e-mail you a link to reset your password. This ensures greater site security.

You can log into the new Web site initially by using the same e-mail address and password you have been using. Although not required, we encourage you to create a new password after you log in for the first time. Just click on the account tab within My Profile. You can also change your e-mail address there.

A word of caution about sharing the same e-mail address: Although it is fine to share a company e-mail address for the purposes of exploring NAAA's Web site, we recommend that every member register a unique e-mail address instead of relying upon a central e-mail address. The new Web site's database management system cannot store the same e-mail address for multiple users. E-mail is considered a unique identifier connected to a specific person's



account. That typically means the e-mail address is connected to an NAAA Operator's profile. Therefore, any pilots, support personnel or WNAAA Members sharing the same e-mail address would not be able to maintain their individual accounts online because the system doesn't have a trigger to connect them to their personal profile.

If you are unable to access your personal My Profile information, contact NAAA at 202-546-5722 and give us a unique e-mail address to register. Once the new e-mail address is in the system, you will be able to create your password by clicking on "Retrieve Password" on the Login page. It is important to have a unique e-mail address to access your profile information, but you still maintain control over how NAAA uses that e-mail address. If you don't want to receive e-mail correspondence at that address or NAAA to publish it in the Membership Directory, check the "Do Not Email" box under contact information in My Profile. It's as simple as that.

Less Static, More Dynamic Content:

The content management system that supports NAAA's new Web site is easier to maintain and update. The result should be a more dynamic viewing experience for visitors to NAAA's Web site, as new content gets added and older content gets updated on a recurring basis.

We think you will agree the new Web site is a dramatic departure from NAAA's previous Web site and a giant leap forward in terms of educating the public about the importance of aerial application and enhancing the industry's and NAAA's brands. Happy surfing!







PAASS Program Beginning New Season

Ag Aviation Ethics Discussion New to This Year's Curriculum



By Ken Degg NAAA Director of Education & Safety

TAAREF and the PAASS Program Development Committee (PDC) have announced the content of the 2010-2011 Professional Aerial Applicators' Support System (PAASS) educational program for the aerial application industry. The approaching season represents the 13th year of PAASS programs offered by applicators to applicators designed to enhance their knowledge of safety and technology. The tips and techniques PAASSed along at these educational forums should be used daily by everyone involved in aerial application.

The following is an overview of the 2010–2011 PAASS Program. Coming soon to a state association near you:

The Ag Airfield Watch security module will illustrate the way one state's operators and state association have organized a communications network to combat any threat to the security of ag businesses. The video depicts an actual event that occurred last spring in Arkansas and the way the Arkansas Agricultural Aviation Association's network was able to help bring the situation to a favorable outcome.

The **Human Factors module** will cover two separate but very important issues. The first is on the subject of stall/spin accidents which are often

fatal when they occur. This subject has been covered in earlier PAASS Programs, was the topic of a 1996 video titled "Turn Smart" and is being revisited this season with an entirely new education approach since these accidents continue to occur. Attendees at the 2009–2010 programs were given a remake of "Turn Smart" on DVD to stimulate their interest in understanding flight situations that may lead to an unfavorable outcome.

The second part of the Human Factors module is the much requested ethics program. While traveling throughout the country, PAASS presenters and NAAA officers are frequently asked what the association and the PAASS Program are doing about unethical practices that are employed by some ag operators. This module will explore the definition of ethics and ask attendees how ethics relate to the ag aviation industry. It is hoped that each attendee will search his or her own operating practices and attitudes to see if changes are needed to demonstrate the highest in moral standards to customers and the community.

The **Spray Drift Mitigation module** will investigate the causes of three separate drift incidents that are based on actual happenings. Pictures and background information will be used to illustrate what went wrong and why in each case.

The **Hangar Flying module** will explore the accidents that occurred during the 2010 spray season. Attendees have asked for an overview of accidents to learn from the mistakes of others.

A subject that is planned for Hangar Flying involves safe operations around non-towered airports including traffic pattern requirements and communications. The program will also present a reminder about working in the power line environment and a resource video that is available to aerial applicators. Another topic of discussion will be the planned FAA guidance material that addresses the safe procedures for hot loading and hot fueling of ag aircraft.

Time permitting, the PDC desires to cover points to consider when conducting cross-country ferrying operations. Several fatal accidents have occurred while ferrying in recent years. New ideas about operating in the vicinity of wind generating farms are timely topics for discussion. Currently, no educational program would be complete without an update on the EPA's National Pollutant Discharge Elimination System (NPDES) program and required permits under the Clean Water Act.

PAASSing Grades

PAASS was formed with the intention of reducing accidents and drift

incidents in the aerial application industry through education before the government attempted to accomplish the same goal by creating new regulations. Statistics both before and after the PAASS Program began have proven the concept to be a valid one. Accident data from the National Transportation Board (NTSB) and the FAA General Aviation Activity Survey yielded the following.

- The average ag accident rate since PAASS began is 7.58 accidents per 100,000 hours flown compared to 9.5 accidents per 100,000 hours for the six-year period prior to the PAASS program. That amounts to more than a 20 percent reduction in accidents!
- During the same period, the ag accident fatality rate decreased from .91 to .83 deaths per 100,000 hours flown.

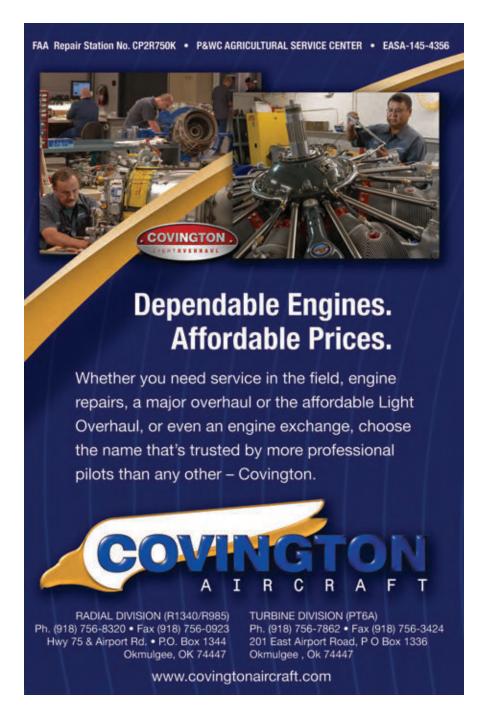
Drift complaint information compiled by the American Association of Pest Control Officials (AAPCO) indicates a similar improvement. AAPCO ran two surveys of its members' state agencies seeking the number of confirmed drift complaints involving aerial application. The first covered the three-year period of 1996-1998, which was the before the PAASS Programs were presented. The second survey was for the years 2002-2004, which represents a period after PAASS began. The annual average of the first survey was 333 complaints compared to 247 complaints for the second survey. Those surveys show nearly a 26 percent improvement!

The terrorist events of 9/11/2001 prompted PAASS to add an additional goal of increasing the security of ag operations to prevent chemicals, aircraft and equipment from falling under the control of unauthorized persons. Hence, the Ag Airfield Watch

security module was born. NAAA and NAAREF's commitment to enhancing ag aviation security and educating the industry about this new threat has earned praise and support from the FBI, TSA, EPA and other federal agencies.

The above summary of the 2010–2011 curriculum reveals the PAASS Program should have something or

many things of interest to every aerial application business. We look forward to seeing everyone at one of the state/regional association-sponsored programs starting with the first presentation in Michigan scheduled for late October. Consult NAAA's Web site calendar at www.agaviation. org/calendar.htm for the date and location of the nearest PAASS program. You will be glad you did!





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| | | | |
| 130 | 3.5 | 9.6 | 19.8 |
| | | | |
| 120 | 2.3 | 6.1 | 13.6 |
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Toll Free 866 303-0600 www.cpproductsinc.com Leased Aircraft: Whose Policy is it Anyway?



By Randy Hardy NAAA Insurance Committee

This month's article regarding leased aircraft is simple at best; however, it brings up other issues that you may need to tend to. As agents we are often asked questions about this subject like:

- "Who is required to provide the insurance coverage on the leased aircraft?"
- "Am I protected against claims resulting from the lessee's operation of the aircraft?"
- "Can I lease my aircraft to another operator and still have coverage under my policy?"

Let's examine the lease issues in the policy to find answers. In each ag aircraft policy you'll find in the exclusion section the words "this policy does not apply" (A) if the aircraft is leased, rented, or loaned to anyone other than the named insured, or (B) while the aircraft is subject to any lease, lien, condition of sale, mortgage or other encumbrance not specifically declared and described in the policy. Each policy's verbiage may differ slightly, but the intent is the same.

Let's look at the first part (part A) of the exclusion and why it's there. It's important to remember that your policy is a contract between you and the insurance company. When you or your broker approached the carrier the risk factors were based on your care, custody and control of the aircraft. All factors to determine coverage were based on your location, pilots, crops treated, season and your loss history (good or bad). If you lease, rent or loan this aircraft to another party, the insurance company has had no ability to rate the policy for this additional exposure. With that said, the policy you own is in two parts: Physical damage (hull) coverage to pay for direct loss or damage to the aircraft, and, more importantly, liability coverage. The liability coverage is there to protect you for any damage you do (bodily injury or property damage) to a third party. By leasing, renting or loaning your aircraft out to another operator, you have in effect assumed the liability of that operator. Is that something you really want to do? Hopefully you'll agree, the answer is no.

There is a good side to all of this. If you find yourself desiring to lease, rent or loan your aircraft to someone else, the operator who is going to accept the aircraft into his care, custody or control needs to add it to his policy providing you and/or your company with an owner/lessor endorsement, or name you as a loss payee and additional insured. This will depend on the company and its respective wording. You will want to make sure that if any liability is brought against you due to the lease, the lessee's policy covers you, and in the event of a physical damage claim to the aircraft, your name also appears on any settlement check.

Under part B of the exclusion, make sure you list any other encumbrances on the policy through your broker. If you have leased another aircraft for your use, then you need to show this on YOUR policy. If you have liens against the aircraft you also need to show this on your policy. All of these issues make any claims process go smoother and without any hitches.

When you insure your aircraft check the way you have registered the aircraft and consider all parties involved. If mom and dad are the owners and it's leased to their own spraying business, then insure it that way. Even though it's thought to all be the same this properly protects all parties who have a financial interest in the aircraft.

Don't be afraid to lease your aircraft, or if you need to, to lease one from someone else. Inform your agent as to what you are doing since we love knowing in advance what your intentions are. Remember, no one likes surprises and your agent is there to help protect your interest in every aspect of your operation.

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.



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The 2012 Farm Bill and the Future of Agriculture: Why Innovation Matters



By Jay Vroom
President and
CEO, CropLife
America

The Food, Conservation and Energy Act of 2008, also known as the U.S. Farm Bill, was enacted on June 18, 2008. Only two years later, agricultural stakeholders, including CropLife America (CLA), are already thinking about the Farm Bill's expiring authority in 2012 and the need to lay the groundwork for the next Farm Bill in the 112th Congress.

The 2008 Farm Bill made historic investments in conservation, energy, specialty crops and nutrition programs. CLA advocated for the inclusion of research and education programs intrinsic to advancing modern agriculture, while also ensuring provisions that directly and positively impact crop protection products. In addition, CLA encouraged sustainable agriculture via ecological policies that promote modern and innovative farming practices. In fact, the 2008 Farm Bill included the definition from

the pesticide regulatory law, FIFRA, of integrated pest management (IPM) in the legislation's conservation title. With CLA's support, the bill also did not attempt to limit pesticide use as an important tool for achieving our nation's "conservation goals." This helped further recognize that innovative products such as insecticides, herbicides and fungicides, along with other practices like IPM, are an important part of conservation. They help farmers increase yields and overall production without increasing land use, conserve natural lands by enabling the maximization of existing farm space, preserve water quality and aquatic habitats and improve water efficiency by reducing soil erosion and protecting native plants and animals from invasive species.

Already in April 2010, House
Agriculture Committee Chairman
Collin Peterson, with U.S. Secretary of
Agriculture Tom Vilsack, conducted
their first hearing to begin discussion
of U.S. agriculture policy in advance
of the 2012 Farm Bill. Peterson stated
that the hearings were the first step in
the process of writing the next Farm
Bill, and noted that a bill so large and
covering so many issues takes time and

effort to get right. We could not agree more. "I look forward to working with my colleagues on both sides of the aisle and from all regions of the country to be sure that we put together a bill that supports the food, fiber, conservation, energy and rural development needs of this country," said Peterson. It will require the input of all ag stakeholders to support the myriad of programs authorized in this regularly recurring legislative reauthorization.

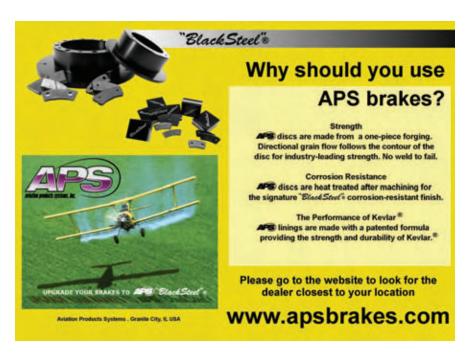
Many of the same issues that garnered CLA's focus in the 2008 Farm Bill will also have our attention in 2012. Of chief concern to many in Congress will be how to revitalize rural economies, helping the American farmer plant and harvest their crops by employing the latest scientific production advances. Access to technology, including the latest in crop protection innovation, will be fundamental to cost-effective farming. Farmers aren't able to efficiently produce enough food at low cost unless they have access to the best innovative technology available to modern agriculture; in other words, for our food, fuel and fiber production to stay apace with demand, things will have to change. A commitment to practical science

in the 2012 Farm Bill will ensure that innovation is encouraged, newer chemistries continue to be developed and made available on the market and more highly effective and targeted products will mean the most efficient production and result in the greatest path to profitability to farmers over the long term.

More and newer agricultural technologies not only expedite the development of products that meet the need for sustainable, environmentally friendly farming practices and food safety, but also result in more consumer choice for food quality and variety. As farmers employ the very smartest blend of production inputs, they're then able to redirect their energy toward reconnecting with customers and consumers, identifying market needs and trends, and producing the right products. Farmers, and all agriculture stakeholders, can use this information to improve food and agricultural systems, the environment and the health of Americans. Ultimately, we can improve consumer confidence in the agricultural system and expand traditional agricultural markets, benefiting farmers, their producers and suppliers and American agriculture on the whole. The revolution of biofuels is a great example. So is the ongoing education effort to expand consumption of fresh fruit and vegetables for better health.

As we embark on the next Farm Bill and continue to advance agriculture, it is science and technology's combination with smart, hardworking farmers and their local dealers and custom applicators (ground and aerial) that guarantee farming's future. We must use it not only to hasten agriculture's progress, but rely on it as an unbiased judge for guidance in making decisions about agriculture today.









Membership:

A Professional Choice

By Margaret Dea Office Affairs Coordinator

AAA is experiencing a growth spurt, and that should make everyone in the aerial application industry happy. The association ended 2009 with 118 more members than in 2008. As of the end of June 2010 we had only 40 fewer members than at the end of 2009. If history is any indication, we should end this year with a very healthy increase over 2009, since many members renew (or join for the first time) in the fall to take advantage of reduced convention rates.

As the association grows, so does its ability to provide more and more tangible and intangible benefits to members and non-members. Yes, NAAA members are providing the support for professional opportunities enjoyed by everyone in the aerial application industry. As membership numbers have grown, NAAA has been able to create more return on investment for everyone in the industry. Recent developments include a redesigned Web site (see pg. 34) and new materials addressing wind tower issues for members to present to media outlets. More resources are available for enhanced convention benefits and for lobbying and advocacy efforts at the national level.

Many non-members attend PAASS programs, our convention, and Operation S.A.F.E. fly-ins to take advantage of all the latest information in the industry. However, only NAAA members are designing and shaping the content of all these programs, as well as the direction

of our publications and national representation in Washington.

Active members are at the heart of every organization, and NAAA has a wealth of tireless hard-working members who help the industry prosper in myriad ways. They are the leaders in a critically important segment of our economy. NAAA offers its Leadership Training Program precisely to help our members hone the skills necessary to be proactive and as professional as possible, dealing confidently and effectively with the public and with local agencies that affect their livelihoods. Many Leadership Training graduates have gone on to play active roles in their states' organizations as well as in NAAA.

Members who are not as active are still extremely valuable to the organization. Our members possess a wealth of knowledge and experience which they constantly share through networking at the convention, ideas for our publications, input regarding governmental issues, attendance and votes at Board meetings, suggestions regarding the direction of NAAA, and, very importantly, through the exchange of information during PAASS programs.

NAAA is very aware of the enormous amount of information disseminated during a PAASS program. Security tips are shared, as well as health tips regarding stress/diet/fatigue, equipment/maintenance information, drift mitigation suggestions, business and ethics questions and regulatory

clarifications. But the most important issue of all is safety and accident prevention, and all attendees benefit from each other's perceptions.

Of course, members and non-members all share their knowledge at the PAASS programs and at the convention. More attendees produce more ideas, which is helpful to everyone. But neither of these educational events would be possible without NAAA's *members*. And the more members there are in the association, the stronger NAAA's programs and its individual members can become.

There are many tangible benefits to becoming a member of NAAA:

- Individual operators have saved thousands of dollars each year, and the industry as a whole has saved *millions* because of NAAA's lobbying achievements. For example, NAAA secured more than \$4 million in annual federal fuel tax relief for U.S. aerial applicators.
- NAAA filed comments on members' behalf on two major EPA proposals this year. In March, NAAA responded to the agency's open-ended drift labeling proposal. In July, NAAA addressed EPA's draft general permit for pesticide applications made into, over or near waters of the U.S. for a number of different pesticide uses. While the final outcome has yet to be determined, imagine where the industry would be if NAAA wasn't available to advocate for it when tough regulations must be addressed.



- NAAA's new and improved
 Web site, www.agaviation.org, is
 loaded with useful information for
 members and the public. Membersonly content includes NAAA's
 online directory, E-Newsletter and
 magazine archives and the NAAA
 Media Relations Kit.
- NAAA created a series of ad slicks and radio scripts for member use that raise awareness about the worrisome effects of wind energy development on agriculture and aviation.





NAAA's Wind Tower Education Ad Slicks are available at www.agaviation.org/towers.htm.

• NAAA worked behind the scenes for months to help shape a positive piece in *The Wall Street Journal*. The front-page article examined the need for aerial application under the headline, "Flying Low is Flying High as Demand for Crop-Dusters Soars."

If you are already a member, thank you very much for your contribution

to the success of your industry. If non-members are enjoying any of these benefits, they have our membership to thank. The best thanks would be to become contributing members of the aerial application industry by joining NAAA and helping to support and shape the future of all its endeavors on behalf of its members. It is an investment in

one's self and one's professionalism, providing exposure to the rest of the industry, career opportunities, and a support system unique to the aerial application industry. So be a part of the organization that represents YOU and join NAAA today.



NAAA Membership Application





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| 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. | Signature |

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 2009 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 July 23, 2010

AFFILIATED ALLIED

Bruce Senst WinField Solutions Shoreview, MN

Tim Charles Turbine Installation LLC Caldwell, ID

Jitu Patel Machida Inc. Orangeburg, NY

ASSOCIATE

Brandon Bascue England, AR

Warren Fritz Elizabethtown, KY

Pier Gugliotta Silverthorne, CO

Tom Lund Marion County Industrial Foundation Lebanon, KY

Joseph Stanfield West Terre Haute, IN

OPERATOR

Kevin Brown Bluestem Aerial Sprayers Cushing, OK

Bob Donner

Donner Aerial Spraying II Belview, MN

Dean Heimermann Countryside Aviation LLC Chilton, WI

Timothy Watson Forest Tech LLC Lawrenceville, GA

PILOT

Anthony Camarillo El Reno, OK

Jim Champion Marks, MS

Simon Enrich Bluffton, SC

Randall Hansen Mohave Valley, AZ

Eric Hinshaw Lake Wales, FL

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People and Products

Chinese Ag Aircraft Producer Progressing Toward Airworthiness Certificate for N5B

A new type of ag-forest aircraft being developed by Avic Hongdu Corp. successfully achieved its first flight in Nanchang City, Jiangxi Province, China, on July 20. The No. 003 N5B aircraft landed safely after 18 minutes and two rounds of flying. "The aircraft took off and landed very smoothly," said Li Youhe, chief designer of N5B aircraft, "and the flying postures were very pretty."

According to Hongdu Aviation Project Manager Yang Jiangshan, the No. 003 N5B is a significant step forward in the development of Chinese-made ag aircraft. Hongdu Corp. is the sole producer of ag-forest aircraft in China.

The design for the N5B aircraft started in September 2005. In 2006, Hongdu applied to the Airworthiness Division of the Chinese Aviation Authority (CAAC) for an airworthiness certificate. The first N5B aircraft, the No. 001 N5B, flew for the first time in Nanchang in July 2008. Hongdu Aviation is working toward the issuance of a Type Certificate before the end of 2011 so the N5Bs can be produced and sold.

Hongdu originally built the N5A, which was a single-engine, single-pilot, low-wing design with tricycle landing gear. It was powered by a Lycoming IO-720-D1B piston engine developing 400 HP and utilized a Hartzell constant-speed three-blade metal propeller. This model was successful in obtaining a U.S. FAA certificate.

The model N5B is equipped with a conventional, tail-wheel landing gear and is powered by a Walter M601F

turboprop engine developing 777 HP for take-off and a cruise power of 670 HP. The "B" model incorporates many of the good characteristics of the "A" model but has included many improvements and modifications in structure, load capacity and comfort. The company's Web site claims a full-payload service ceiling of 6,000 meters which is nearly 20,000 feet and that it works well at low or high altitudes.



Avic Hongdu Corp.'s No. 003 N5B aircraft achieved its first flight in Nanchang City, China, on July 20.

A San Diego Reunion of Sorts

By Nancy Turnquist Whirly Birds Inc. Lake Wales, Fla.

Editor's Note: Nine years after the NAAA, NAAREF and WNAAA
Boards of Directors last met in San
Diego, the associations' leaders return to "America's Finest City" for the 2010 Fall
Board meetings Oct. 15–17. As Nancy
Turnquist recounts, many board members were privy to a very special union the last time they were there.

It's Oct. 12, 2001, and we are in San Diego for the NAAA/NAAREF/ WNAAA Fall Board meeting. We are headed to the California Agricultural Aircraft Association and Weatherly Aircraft Company sponsored dinner cruise on the "Sprit of San Diego" on San Diego Bay and spirits are high. We're looking forward to seeing friends we know from all over America and meeting many we don't know. Ag pilots are a friendly group and always ready to enjoy a good time.

After we are seated we notice the beautiful young woman and the handsome Marine in dress uniform come in and take a table near us. They have friends with them and look like they are excited and maybe

a little nervous. Being the inquisitive type I manage to arrive in the ladies room shortly after the young woman who is obviously dressed for a special occasion and I ask if she would mind if I ask her the reason for the special attire. She answers excitedly, "We're getting married."

"How wonderful!" I reply, "I love weddings, they are always so much fun." With that said, we are off on a conversation about her having three days to plan this event and gather her friends from work and his co-worker/chaplain to bless the marriage. Their names are Ed and Ellie and their



parents couldn't make it all the way to San Diego on such short notice. Well, no young couple should stand without parents or substitutes and being inquisitive and loving weddings and having all the chutzpa in the world I asked if they would like Lee and me to stand in as parents and could all the NAAA folks aboard join in for their wedding. The answer was yes.

Lee and I told everyone we knew on board the dinner cruise that a wedding was happening. The time for the wedding arrived and we were called topside to witness the event. You could feel the emotion in the air. All our people were excited to be a part of something so special and to give the new couple all their blessings. Among us we had lots of years of experience in life and marriage and everyone was pouring blessings on the couple. We realized a gift was a wonderful idea and Betsy Miller from the Northeast asked for monetary contributions from all our members. When she presented the stack of bills to the groom and he realized what it was he had tears in his eyes that total strangers could be so generous. Doug Davidson graciously taped the wedding ceremony and included all the attending NAAA folks and gave the couple the tape on the spot. We continued the evening with everyone



A RENO REUNION Several members of the NAAA contingent at the San Diego nuptials in 2001 gathered for group photo at NAAA's 2009 Convention in Reno. Pictured from left to right: Bob Bailey, Bailey Flying Service; Randy Hardy, Hardy Aviation Insurance; Mickey Tinnes, Air Care Inc.; NAAA's Peggy Knizner, Randy Hale, Hale Dusting Service; Jayne Rucker, Rod Thomas, Thomas Helicopters; Cary Rucker, Rucker Flying Service; Mark Hartz, Grand Prairie Dusters; Nancy Turnquist, Dennie Stokes, Stokes Flying Service; Lee Turnquist, Whirly Birds Inc.; Jeff Reabe, Reabe Spraying Service; Gail Kemper, Queen Bee Air Specialties; Bill Lockwood, Okanogan Air Service; and Carolyn Baecker, CP Products Co. Inc.

dancing with the bride and groom and having a wonderful time.

Flash-forward to 2009 and NAAA's Annual Convention in Reno. Someone asks if we ever hear from the San Diego wedding couple and yes, yes, the answer is yes. Lee and I still exchange Christmas cards with Ed and Ellie Walsh of Hampstead, N.C., and we have been apprised each time one of their two boys have been born. The idea for a photo came from Mickey Tinnes of Lamar, Colo. An announcement went out at the Farewell Banquet requesting that anyone on the San Diego dinner

cruise in 2001 stick around for a group photo. Sixteen NAAA and WNAAA folks smiled with the memory. We sent a copy to Ed and Ellie and they posted it immediately on their Facebook page for all their friends and family to see.

Ed and Ellie think fondly and highly of a group of strangers they called crop dusters that would rally so fully around them at such a special time. In fact, I get the idea they tell their unusual wedding story almost as often as we do. I know I'll be thinking of them when Lee and I return to San Diego for NAAA's Fall Board meeting this October.



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NTSB Accident Report



| Date | City | State | Aircraft Type | N # | Injury | Description of Accident |
|----------|-----------|-------|---------------|-------|---------|--|
| 05/03/10 | Yuba City | CA | S2R-T34 | 6018T | None | Chip detector illuminated–Lost control on downwind landing |
| 05/15/10 | Baraboo | WI | R44 | 570MD | None | Spray boom caught crop during turn |
| 05/18/10 | Glenn | CA | S2R | 29254 | None | Power loss-hit pole along road on forced landing |
| 05/21/10 | Robbins | CA | G-164B | 3633C | Serious | Possible brake malfunction on landing |
| 05/21/10 | Roe | AR | S2R | 107CA | None | Unable to get airborne on downwind TO |
| 05/22/10 | D'Hanis | TX | AT-301 | 3159D | None | Forgot flaps on TO–hit fences |
| 06/04/10 | Pollard | AR | AT-502B | 6083G | None | Power loss–forced landing in corn field |
| 06/07/10 | Knobel | AR | AT-602 | 4184P | FATAL | Impacted terrain during turnaround |
| 06/09/10 | Orange | TX | Ce A188B | 9510J | None | Loss of control on TO-loose landing gear attachment bolt |
| 06/10/10 | Los Banos | CA | OH-13E/M74 | 38110 | None | Possible fuel exhaustion |
| 06/13/10 | Courtland | CA | G-164 | 6726Q | Serious | Hit terrain–attention diverted in cockpit |
| 06/14/10 | Penrose | AR | AT-602 | 4257R | Minor | Power loss–force landed in rice field |
| 06/16/10 | Mayfield | KY | G-164 | 6780K | None | Nosed over on landing during FAA test |
| 06/23/10 | Rickreall | OR | Bell 206B | 3194G | None | Fuel exhaustion |
| 07/05/10 | Marion | KY | R44 | 857PM | FATAL | Hit power line guy wire-helicopter burned |
| 07/15/10 | Rowley | MA | OH-58A+ | 802JB | None | High-speed governor bearing failed |
| 07/19/10 | Clyde | ОН | Ce A188B | 5855G | Serious | Power loss-hit grain auger & terrain |



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Forget LinkedIn, It's Time to Get Some Links In!

Golf Tournament Benefiting Agricultural Aviation Museum and NAA Hall of Fame Tees Off Oct. 8–10

Before the days of social networking sites like Facebook, Twitter and LinkedIn, friends and businesspeople socialized and networked by getting some links in. This fall, aerial applicators and friends of the ag aviation industry will have two great ways to socialize the old-fashioned way and get their golf fix in at the same time.

The first opportunity is the 29th annual National Agricultural Aviation (NAA) Museum & Hall of Fame Golf Tournament Oct. 8–10 in Olive Branch, Miss. The golf



STOKING THE FLAMES Stokes Flying Service Operator Dennie Stokes (left) handles the food for the NAA Museum/Hall of Fame picnic.

festivities continue in Savannah, Ga. Dec. 4–5 at NAAA's AgAv PAC Golf Tournament (see pg. 32).

The NAA Museum & Hall of Fame tournament tees off Oct. 8–10 at the Plantation & Cherokee Valley Golf Clubs in Olive Branch, Miss. Proceeds benefit the National Agricultural Aviation Museum, a museum dedicated to preserving the history of the aerial application industry. The museum is affiliated with the Agriculture & Forestry Museum in Jackson, Miss.

In addition to hitting the links, a number of non-golf activities will occur at the Whispering Woods Conference Center and Hotel. The festivities kick off Friday, Oct. 8, with a gumbo cook-off at the hotel, followed by more down-home cooking the next day. Saturday evening's menu includes a barbecue picnic with ribs, pulled pork and all the trimmings.

Facebook may have 500 million users now, but last time we checked, face-to-face interactions have yet to go out of style. To register for any or all of these events and make room reservations, contact Lou Stokes, the event's organizer, at 870-792-7474 or lsmimi@hotmail.com.

National Agricultural Aviation Museum & Hall of Fame Golf Tournament Schedule and Registration Form

| Golfer's name: | |
|-------------------------|------------|
| | |
| | |
| | |
| | |
| | |
| Social only: | |
| | |
| | |
| Golf Fee \$185 | |
| (Includes golf & meals) | meals only |

Call Lou Stokes at 870-792-7474 to make your hotel reservations and request tee time for Saturday. Hotel reservation cutoff date is September 15, 2010, then the room rate goes up. Hotel rate is \$92, includes continental breakfast. When you call Lou to reserve your room, she will need your credit card information to hold your room.

Send entry form & check to: NAA Golf Tournament • c/o Lou Stokes • 1373 Hwy 149 S • Earle, AR 72331

Tournament Schedule:

Friday, Oct. 8, 2010

5 p.m. – Registration

6 p.m. – Cocktail Party (front bldg)

7 p.m. – Cajun Dinner (bldg) Chipping Contest

Saturday, Oct. 9, 2010

9:38 a.m. – Qualifying Rounds Start-Plantation

6 p.m. - Happy Hour

7 p.m. – Bar-B-Q Dinner Putting contest & Calcutta

Sunday, Oct. 10, 2010

9:30 a.m. – Shot gun start Scramble Awards luncheon after golf @ Cherokee Village

All evening events will be in the front building at Whispering Woods Conference Center.





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