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A Towering Issue

NAAA continues to clear the air about wind energy development's effect on pilot safety and America's farmland

Also Inside:

- NAAA's New Wind Tower Education Ads Are Pretty Slick
- To Spray or Not to Spray
- From Mayday to Miracle Inside of 20 Minutes

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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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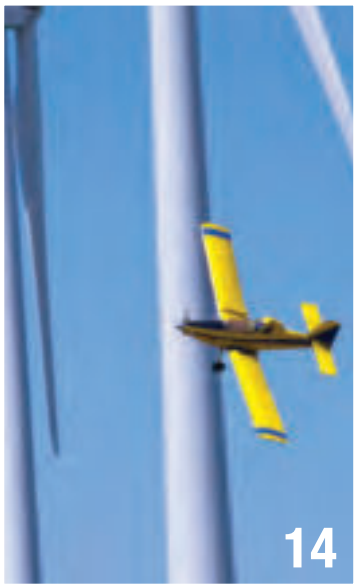

ON THE COVER

Richard King of Double K Spraying Service flies through the teeth of an Oklahoma wind energy facility

ALSO INSIDE:

Rick Boardman knows he is lucky to be alive after pulling off one of his better landings

Cover photo courtesy of David McNeese.

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Agricultural Aviation is the Official Publication of The National Agricultural Aviation Association

President's Message

Brian Rau

To Spray or Not to Spray

*Against the wind, A little something against the wind, I found myself seeking shelter against the wind …**

Across the Great Plains and in some other areas an ongoing informal discussion among aerial applicators is taking place about whether we should work in and around wind turbines. My trade area is slated for several large wind projects in the near future. Knowing that this may be coming, I have spent the last two years visiting with other applicators about operating agricultural aircraft around these 400-foot obstructions. I do not have the answer to the above discussion, but I would like to share some information that I have accumulated by listening to others on this subject.

The first obvious thing that stands out when talking to applicators regarding spraying in and near wind sites is that all would prefer not to. Their responses usually become much more explicit when considering the possibility of having an increasing number of turbines to work around. This is an important point to bring to a grower's attention if he is considering placing turbines on his land or renting land that already has turbines. Often aerial applicators are called upon to protect crops in an emergency situation. During these times there are usually many growers in the area who require aerial application services at the same time. If an applicator already has more work to do than he can get done in a day, highly obstructed areas will probably be done last, if at all.

It is important for our industry, when discussing this issue, to consider that the person you are having a discussion with may be talking about a very different type of wind site than you have in mind. If the turbines are less concentrated, or placed in a linear fashion, it is easier to work around them. Some applicators will work in one site but not in another, or will be able to work on the outside of a site, but not in the center. I have seen some sites that most would agree are not workable at all.

The total number of obstructions in the area of the field is also important. I have a couple of fields that I will not spray because of transmission lines, cell towers and other obstructions. Add 100 wind turbines to the township and there will be dozens of fields that I will not be spraying. How many obstructions can you keep track of at one time? Most who fly in and near wind sites say it is best to stay low and fly around the turbines and not above them. The air is less turbulent down low and judging clearance above a moving turbine blade is difficult. However, staying low exposes you to obstructions that you are normally above. Is the terrain flat or rolling? I have always found elevation changes makes dealing with obstacles more difficult.

NAAA's new ad series available for member use illustrates how poor tower marking and improper wind turbine siting put pilots' lives and farmers' livelihood at risk. See pg. 28 for more details.

Would bringing in a helicopter help? As a fixed wing operator, this is a question that I posed to several rotor wing guys. The answer seems to be "maybe." If the issue is obstructions around the outside of the field, a helicopter can stay in closer to the field during the turns. If the obstructions are in the field, a helicopter may not have an advantage. There are many other factors to consider with a helicopter, as it is a different type of operation than fixed wing. Even if a

helicopter would be helpful regarding the obstructions, they may not be viable depending on the type of work you do.

Most who do work around wind turbines charge more. The most common number I have heard is 50 percent more. Some are considering charging an hourly rate instead of a per-acre rate. This makes sense since the pilot would have less pressure to rack up acres and could take the time to plan each pass. Should an operator carry higher levels of liability insurance? If operations continue around wind turbines, eventually there will be a collision. The new wind turbines are getting larger and more expensive with a price of $3 million each. How much damage will result and who will be liable if a collision occurs? Unfortunately, we know the most likely outcome to the aircraft and pilot.

What should be done about the issue of wind turbines and aerial application? NAAA is doing what a national organization should do which is to affect change in Washington. NAAA has met with and continues to meet with the USDA, FAA, members of Congress and the American Wind Energy Association to present our concerns to them. Many express concern about the situation and appear to be sympathetic; the problem is these same people will not go further and express those concerns to others or make any statement that might appear (or be used to make them appear) to be anti-green energy by their constituents.

Local is our best answer to wind energy. Ultimately, growers and landowners will have to value our services more than they do the income from placing wind turbines on their land. These people do have to be informed. Each operator has a customer list and has some type of access to local media. NAAA has developed a series of radio and print advertisements that members may use to inform customers and the media. Care should be taken regarding who is targeted with these advertisements as some may see this information as an incentive to find a different way to do the application (such as a high-clearance ground sprayer) and still receive the income from the wind turbines.

I have seen something similar happen with a commodity association. This association, rather than publish information that may appear to be anti-green, has tried to present growers with other options to aerial application. There are other negatives in addition to the effect on aerial application of which we can make our customers aware, such as: decline in land values, smaller fields, interference with auto steer systems and possible health effects from the low frequency noise and light flicker problems.[1]

Where is the wind energy business going? Some in the wind energy business say that investment money is drying up for wind energy. T. Boone Pickens has cut his grand plans by half. A developer just outside of my trade area missed his construction start date last summer and has cancelled a formal hearing with the state Public Service Commission. Information about the small amount of energy that is actually produced is starting to be made known. Wind energy, no matter how big the site, has zero watts of dispatchable power (power that can be depended on). This raises havoc with the electrical transmission system and is starting to be noticed.[2] What Washington will do to promote wind energy is always a concern and an unknown. At least the president is mentioning the word "nuclear" in some of his energy talks. ■

…. *Deadlines and commitments, What to leave in, What to leave out, Against the wind.*

*Bob Seger, 1980 album "Against the Wind"

1 *Public Health Impact of Wind Turbines*, Minnesota Dept. of Health, May 22, 2009
The Brewing Tempest Over Wind Power, Wall Street Journal, March 2, 2010

2 *Natural Gas Tilts at Windmills In Power Feud*, Wall Street Journal, March 2, 2010
The Economy Hits Home: Energy and Environment, The Heritage Foundation, October 6, 2009

Executive Director's Message

Andrew Moore

Crystal Ball

Every month I read the magazine *Associations Now* published by the American Society of Association Executives (ASAE). In a recent issue printed earlier this year there was a cover story predicting what the association world will look like in 2030. The article prompted me to envision what the aerial application industry, NAAA and our national and global demographic environment might look like in the next few decades.

A current trend we have seen in our industry has been consolidation of smaller aerial application businesses into larger operations or the purchase of aerial application operations by larger agricultural retailer businesses. Earlier this year four Nebraska aerial application businesses were purchased by a multi-purpose agricultural cooperative creating one of the largest agricultural aerial application businesses in the United States. This purchase follows another national agricultural retailer company purchasing aerial application businesses in the Midwest. Will this become more commonplace in our industry in the next few decades? Will the separation between aerial application businesses and agricultural retailers become blurred? Agricultural retailers are consolidating and providing multiple services.

The average age of an aerial application operator is increasing. As they approach retirement, selling their hard-wrought and successful businesses provides them with a comfortable nest egg with which to enjoy their golden years. This coupled with agricultural retailers' attractiveness to economies of scale and diversification of services means this trend will probably continue over the next decade and beyond. Agricultural retailers recognize that a great number of aerial application businesses are valuable due to the expertise of the operations and because they serve as another avenue to market crop protection products. As a result, the approximately 1,600 aerial application businesses in the U.S. may very well decrease to perhaps half that amount or more by 2030.

What effect might this have on NAAA's future? Consolidation of aerial application businesses will decrease the number of total NAAA members. In a number of past instances, when an aerial application operation has been purchased by a cooperative or an agricultural retailer, that purchased operation no longer is an NAAA operator member; rather, the former owner of the operation becomes an NAAA pilot member. This results in fewer higher-paying operator memberships for NAAA. The Association's dues structure might need to be revised to ensure the resources necessary to offer the same level of government relations, communications, educational and networking services. Larger businesses, based on number of planes, number of operating sites or some other metric, might have to pay a larger share of dues (well above the current $10 extra per aircraft over three per operator) to maintain current Association services.

If the separation of agricultural aerial applicator and agricultural retailer continues to become blurred through consolidation another future possibility is consolidation of national associations. NAAA might join forces with agricultural retailers and become NAARA or ARAAA, the National Agricultural Aviation & Retailers Association or the Agricultural Retailers & Aerial Applicators Association, respectively. Currently, some aerial application operations belong to both state and/or national agricultural aviation and retailers associations. If we recollect our industry's history, however, this may not be a desired option to retain agricultural aviation's independence. NAAA's founding fathers in 1966 saw it necessary to separate the aerial application category of membership from the National Aviation Trades Association and form its own national association to ensure the aerial application industry received specific and focused attention on issues unique to it from other general aviation issues.

New Regs Could be Double-Edged Sword

It is also possible that by 2030 commercial application, including aerial application will have grown substantially as new regulations make it difficult for small and medium-

sized farmers to make applications themselves. One very imposing proposed regulation coming down the pike will require pesticide applications to have NPDES permits when such applications are made over or near water. These will go into effect April of 2011. Assuming this policy isn't overturned by Congress or by the Supreme Court (which NAAA is working toward), farmers might delegate their pest control needs to commercial applicators entirely. The reason: because the proposed policy is expected to create significant administrative burdens by mandating that such permits be obtained from regulatory agencies and, to retain the permits, requiring detailed records and annual reports of applications along with post-application monitoring. Some farmers probably won't have the staff or won't want to bother with the headache of dealing with these new requirements. Applicators establishing administrative departments and well versed on the rules of how to comply with these new permits might make themselves more valuable and marketable to their farmer clients.

Predictions are that activist groups will want to expand the reach of these permits to include all pesticide applications—including terrestrial, not just applications made over or near water. In addition, applicators embracing new precision application technologies to apply exact quantities of product in different doses depending on a plant's need in the same field and using onboard meteorological systems providing constant real-time wind speed and wind direction data to more precisely target the materials and mitigate drift will become more and more commonplace over the next few decades in our industry. It will also help in making aerial services more marketable to farmers because it will save on application materials and fuel.

More Future Forecasting

In the next few decades it is safe to predict that both NAAA and applicators will be using the Internet and related social media as the primary source to communicate with customers. Before long NAAA members will be receiving NAAA Twitter alert texts on their smartphones informing them of a new pilot availability list to reference to fill an ag aircraft seat, or, conversely, an NAAA pilot member might receive a notice of operators looking for an available ag pilot from NAAA's Twitter account. Applicators will be setting up Twitter accounts for their farmer clients informing them of sunny and clear weather forecast and reminding them to get their application requests in so that their fields can be sprayed on these fine weather days.

According to a new study conducted by Ag Media Research & the National Association of Farm Broadcasting, 54 percent of ag producers with $500,000+ in annual gross income and 38 percent of those with $100,000+ are active every day on the Internet so this medium is becoming a more and more important medium to reach farmers. Although only 2 percent currently use "Twitter"—the text-based social networking service—29 percent of producers above $500,000+ in gross farm income have sent or received text messages within the past 30 days. This figure is only expected to grow and will become commonplace by 2030.

In terms of the future of national and global demographics, things look positive for agriculture from a market perspective. There will be 2.4 billion more people or a total of 9.2 billion around 2050. Furthermore, there are billions of people entering the middle class globally, earning more disposable income, and as such, eating more protein which requires more grain to produce. In addition, the ethanol industry is now using half of the U.S. corn crop and as a result there are parallels between how corn and oil trade on financial markets. If oil prices rise in the future, corn will follow. In the long-term strong global food demand, commodity inflation and a weak dollar will create a strong market demand for U.S. grains. This is good for agriculture and farm service providers such as aerial applicators.

Unfortunately our federal fiscal situation won't be looking too rosy in the future. The federal debt is $12.665 trillion and is predicted to grow rapidly. Our current national lifespan is 78.1 years and experts predict that babies born in 2050 will live more than 89 years on average (life expectancy in the U.S. in 1900 was 47.3 years). As life expectancy increases so do expenditures for Medicare and Social

Security. For example, when life expectancy increases by 10 years, entitlement expenditures double. As baby-boomers retire the number of retirees will increase in the U.S. along with increases in expenditures for Medicare and Social Security. Some U.S. population growth projections show that by 2030 there will be 85 million 65-plussers in the U.S. These expenditures could increase to 10 trillion a year in expenditures by 2080!

All of this additional spending requires funding. To pay off the current debt it would require all 308,038,200 Americans to write a check to the U.S. Treasury for $41,115.97. The Federal government will be looking at eliminating tax breaks, credits and exemptions as well as levying user fees and higher tax rates over the next several decades to deal with these severe projected funding shortages. Especially since there hasn't been much appetite to cut spending—our new national health care policy is one of a number of such examples.

Getting Ahead of the Curve

So, those are some personal predictions. Are they set it stone? Of course not, they are based on my personal opinion after analyzing current trends. With that said trends are important to pay attention to and address early to try to reverse if they can lead to unpleasant outcomes. A recent book titled "Denial: Why Business Leaders Fail to Look Facts in the Face and What to Do About It" by Richard Tedlow gives historical examples of leaders sticking their head in the sand and suffering the consequences. Henry Ford's refusal to paint his Model T's any color but black pushed the automaker to near bankruptcy in the mid 1940s. Conversely, Johnson & Johnson, when dealing with its pain reliever pill Tylenol after the products were tampered with and contaminated with cyanide resulting in seven fatalities, immediately recalled the products from the shelves and never minimized the victims' suffering or the company's role in the matter. Addressing the issue forthrightly resulted in the brand surviving.

The lesson in maintaining positive trends for an optimistic future or addressing unpleasant ones to reverse course is not to wait until crisis mode. It will be too late. ■

WNAAA President's Message

Jane Barber

Safety First

Safety: State of being safe.
A safe situation is one where risks of injury or property damage are low and manageable.

Aerial applicators all have their own interpretations of safety and how to ensure it for their businesses. I can only speak for the way we handle safety here at Brett's Spray Service, but hopefully you'll be able to take away some new ideas to add to your own safety procedures. When I see you next, let me know how it differs and what works for you!

It is always a good idea at the beginning of each season to review and update your company's emergency plan with all ground crew, loaders, pilots and office staff. We have safety measures for fire, spills and accidents, even ones Mother Nature hurls at us. Tornados, hurricanes, gale force winds, snow and rain—the list can get rather lengthy.

I highly recommend engaging in fire and accident education with the emergency responders that will be called in by you or the local LEPC (Local Emergency Planning Committee). I don't think you can overeducate the local emergency rescuers or response teams. Training local emergency response teams can be a rewarding experience, not just in saving the life of a pilot, but knowing you have had a hand in educating them about what to do in an emergency involving a downed aircraft.

Invite the local fire department/EMS team out to your hanger. Hands-on experience is the best! Invite them to sit in the cockpit. Have them practice releasing the safety harness. Show them which switches need to be turned off. Point out where the fuel shutoffs are and where the master switch is while they are in the cockpit. Have the remaining EMS workers use a backboard to get the person in the seat out of the aircraft. Or explain the procedure you feel is best in extracting the pilot from the cockpit. Before they leave give them handouts/diagrams of each aircraft being flown by your company. Most aircraft companies have scaled drawings with the specifics listed, amount of fuel each wing holds and hopper capacity.

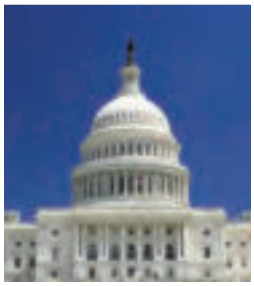
While the local fire department is on the premises take them to each hanger and show them where you store the chemicals. Give them accurately drawn out plans of all hangers and their contents. This is required on the TIER II forms mailed to the local LEPD and fire departments, but there can never be too many copies out there!

One last idea: each year we give updated MSDS books to our local health clinic and the fire department/EMS team. The fire department also has a copy of the NAAREF crash rescue video. (NAAREF will complete a new spill response DVD for use by first responders to agricultural aircraft accidents later this year.)

Make sure your employees—all of them—are familiar with your emergency plan and know how to respond in an emergency. You never know which employee will be the one at the facility when an emergency arises. Each trained, informed employee should be able to locate the necessary information and handle the emergency in a proficient manner.

With each new and improved GPS system an operator installs in his aircraft, along with other new technologies now available to our industry, we can give emergency teams practically the exact lat/longs of where the aircraft will be working, or at the very least the general locality by the load sheets they have taken with them. Keep in mind I am speaking of operations with more than one person working the business.

I wish each operator and pilot reading this magazine a safe and bountiful season. ■



Washington Report

An Update on EPA's Drift Labeling Proposal

NAAA & Industry's Concerns Echoed by Some Government Officials

The comment period for the Environmental Protection Agency's (EPA) proposed spray drift policy ended March 5. NAAA—along with scores of other stakeholders—submitted comments to the Agency urging them to consider the detrimental impacts this label change could have on safe and efficient agriculture production. Shortly after the comment period closed, the Agency reported it had received more than 30,000 comments, with approximately 800 unique comments on the proposal.

The proposed pesticide registration notice, *Draft Guidance for Pesticide Registrants on Pesticide Drift Labeling*, was released by the EPA on Nov. 4 of last year. The Agency is proposing an addition to language on all pesticide labels that would prohibit pesticide applications that result in spray drift that could cause an adverse effect.

As previously reported in *Agricultural Aviation*, such label language has the potential to make practically any pesticide application a violation. The Agency has concluded in the past that some levels of spray drift will inevitably occur from nearly all pesticide applications. The Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) allows for the registration of a pesticide if "when used in accordance with widespread and commonly recognized practice it will not generally cause an unreasonable adverse effect on humans or the environment." Therefore, according to the statute, label language should state that a level of spray drift that does not cause an *unreasonable* adverse effect on human health or the environment is permitted under FIFRA.

Noticeably absent from the Agency's labeling proposal is the word "unreasonable." The word "unreasonable" is an essential part of the legal standard set forth in FIFRA. Removing the term drastically expands what could be considered an adverse effect. NAAA believes this language surpasses the scope of FIFRA and is therefore inconsistent with current statute. NAAA is concerned that EPA's current proposal sets forth vague standards, and open interpretation of the proposed drift language could leave applicators vulnerable to unwarranted lawsuits and penalties.

Due to the serious implications of the Agency's current proposal, NAAA and a coalition of other agriculture groups have reached out to the U.S. Department of Agriculture (USDA), as well as the House and Senate Agriculture Committees to encourage that they engage the EPA on this issue.

House Ag Committee Chairman Collin Peterson (D-MN) sent a letter to the EPA March 16 in which he stated, "The FIFRA established risk standard currently carried on pesticide labels of not generally causing *unreasonable adverse effects* must remain the standard by which all pesticide applications are judged."

State regulatory officials have serious concerns with the current proposal as well. Comments from AAPCO, the Association of American Pest Control Officials, stated that while AAPCO agrees with the intent of the draft PR notice, the group also has serious concerns with the language, "could cause an adverse effect." Its comments state, "The open-ended nature of 'could cause' raises the specter that states will be expected to perform hazard evaluations on each drift complaint investigation we perform. Most states do not have the capacity and resources to perform such evaluations. We (AAPCO) also question whether EPA possesses the current resources to assist states in this regard."

Comments were received from the New York Bureau of Pesticides Management stating, "language which allows for undefined limits of harm on pesticide labels is ripe for litigation and toxic tort cases."

In addition, comments were received from the Arizona Department of Agriculture stating that "labels need to allow applicators to apply [their experiential] knowledge and not be prescriptive in nature ... For example, requiring buffer zones works, but only when the wind may be blowing toward a sensitive area. When the wind is blowing away, there is no need for a buffer."

In early April, EPA Administrator Lisa Jackson held a meeting with Agriculture Secretary Tom Vilsack and several commodity groups to discuss the future of the Agency's spray drift policy. Those present found the meeting to be productive and the Administrator receptive to the concerns of the grower groups. The Administrator stressed to those in attendance that she understood the importance of getting the wording of the proposal right. "At this point, nothing about this policy appears to be imminent," said one commodity group representative.

NAAA Promotes the Industry's Drift Mitigation Measures to State & Federal Regulators

NAAA is constantly working to make sure that the ag aviation industry's strides in safety and efficiency are recognized in the pesticide regulation and pesticide user communities. NAAA Executive Director Andrew Moore and NAAREF President Randy Hale gave a presentation at AAPCO's annual meeting on March 9. Their presentation to the group of state pest control officials, as well as representatives from the EPA, detailed the aerial application industry's educational programs, drift mitigation practices, technological advancements and environmental stewardship efforts.

Moore underscored that the aerial application industry continues to make significant progress when it comes to mitigating drift incidents. He described the industry's education and safety initiatives, such as PAASS (Professional Aerial Applicators' Support System) and Operation S.A.F.E., and explained how those programs improve upon the professionalism of the aerial application industry and promote environmental stewardship.

Hale discussed the technological developments being made through the USDA-ARS facility in College Station, Texas. He also spoke on how private research enables equipment and educational content material for aerial application to be more environmentally friendly, precise and efficacious. He gave examples of how precision agriculture is put to use and described the industry's drift mitigation technologies that are constantly developing and improving. Their presentation emphasized that a combination of education and technology has served to significantly quell drift claims over the past decade.

A representative from the EPA also spoke on the Agency's spray drift proposal at the AAPCO conference. It was conveyed that the Agency is taking the public comments and concerns it has received into account and will continue to consult with stakeholders on the issue. The EPA representative said that the Agency is acknowledging the concerns raised with the phrase, "*could cause* an adverse effect."

NAAA again wishes to reiterate that it has received EPA support on a number of key educational efforts to strengthen applicator professionalism. For example, the Agency has provided financial support to PAASS and assisted with funding the development of the aerial pesticide applicator exam and core manual. The PAASS program began after the 1998 aerial application season, and the corresponding decrease in confirmed drift incidents indicates a definite improvement in terms of mitigating drift within the industry through the use of education and technology rather than increased restrictions.

NAAA believes that the EPA should acknowledge and reward the aerial application industry for the technological and educational advances it has made that have resulted in a reduction in drift claims rather than punish the industry with unnecessary and burdensome drift language.

NAAA has repeatedly encouraged EPA to keep its proposed drift language as flexible and practical as possible. It is important that the Agency understand that technologies to address drift mitigation have been developed and are

commonplace in the aerial application industry, and these technologies will continue to evolve.

NAAA has urged the Agency to promote the use of drift reduction technologies (DRTs) rather than a punitive, burdensome regulatory approach, such as highly restrictive drift language. NAAA has been supportive of the Agency's DRT program, which is intended to reward applicators for using DRTs by mitigating buffers when DRTs are in use. NAAA does have concerns with how DRT policy will move forward if the testing requirements for DRTs are too high for the DRT manufacturers and result in their not being able to compete in the marketplace.

NAAA recognizes EPA's obligation to protect the environment from the effects of off-target drift. However, NAAA has continued to encourage the Agency to achieve this through the promotion of educational programs and support for technological advancements, rather than through burdensome and unobtainable standards. NAAA has also encouraged the agency to maintain an open dialogue with interested parties as this process moves forward.

NAAA wishes to thank those who submitted comments to the Agency on this most important issue. Many comments from the aerial application community contained thoughtful and critical points, and it is always important that the Agency hear these concerns directly from the affected parties. Comments from pesticide applicators were crucial in tabling a similar drift proposal from EPA in 2001, and it is hoped that a similar outcome will be reached in regard to this most recent drift labeling proposal.

NAAA will continue to keep its members up to speed as the Agency shapes this policy. ■

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The Campaign for Responsible *Wind Energy* Development

By Jay Calleja
Manager of Communications

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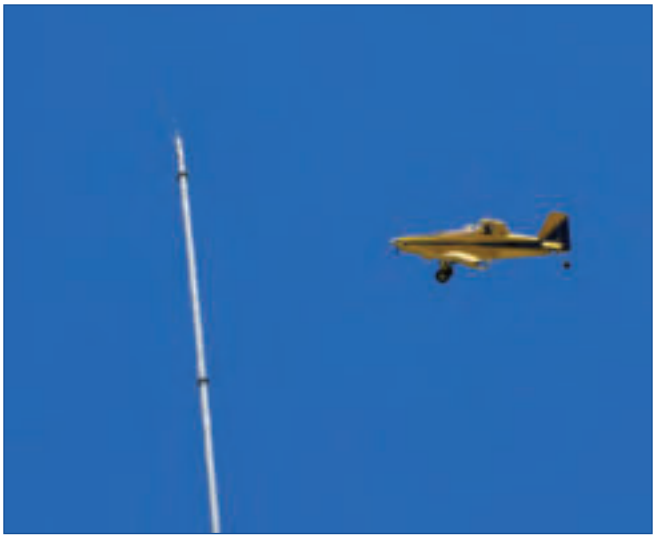

Wind turbines and unmarked meteorological testing towers are a growing problem for aerial applicators.

Being an ag pilot in the age of precision agriculture means being attuned to which way the wind blows at all times. It's easy enough, then, for aerial applicators to see which way the wind is blowing when it comes to wind energy development in America. All they have to do is look outside their cockpit window.

The U.S. Department of Energy has suggested that wind could supply up to 20 percent of the nation's energy by 2030. Several states have gone further by setting hard targets to facilitate that goal. According to the Rochester (Minn.) *Post-Bulletin*, 32 states had established a legally binding target for renewable energy by the end of last year.

In March, the Governors' Wind Energy Coalition, a bipartisan group of 27 governors, came out with a set of wind energy recommendations for Congress and the Obama Administration to consider. Among them, the coalition urged Congress and the Administration to adopt a renewable electricity standard that requires utilities to provide at least 10 percent of their electricity from renewable sources like wind, solar and biopower by 2012.

"Nearly every survey of public opinion—no matter where it has been conducted throughout the nation—demonstrates strong public support for expanded development and use of renewable electricity," the governors' coalition declared in a report titled, "Great Expectations: U.S. Wind Energy Development."

The aerial application industry is in a difficult position when it comes to wind energy development and the wind industry's inevitable growth. On one hand, the industry does not want to be perceived as anti-wind; one the other hand, aerial applicators need to be honest with the public, their customers

and officials at all levels of government about the concerns they have with wind development on arable farmland.

Just as aerial applicators rely on drift reduction technologies to lessen the chance of an off-target application, the industry's advocates are utilizing a variety of tools in their arsenal to try to reduce the negative impact of wind energy development on agricultural aviation.

NAAA and its state association partners have communicated the industry's concerns directly to various stakeholders and government officials. Their message is straightforward: Aerial applicators aren't opposed to wind energy development, just wind energy development that puts their safety at risk. Furthermore, wind turbines can significantly hamper aerial applicators' access to cropland, in turn detrimentally affecting agricultural production.

For all the pushback against wind energy projects by some citizens, concerns about pilot safety barely register on the public consciousness, if at all. Moreover, anecdotal evidence from several NAAA members indicates that many growers do not fully grasp just how disruptive having wind turbines on their property could be to their farming. The fact that wind turbines could impede on their ability to receive timely aerial application treatments is just one of the negative ramifications. A new ad campaign NAAA created for members to use in their markets should raise awareness about the industry's concerns (*related article, pg. 28*).

In addition, there have been some encouraging developments in Minnesota, South Dakota and Wyoming, three of the hotspots where aerial applicators are actively working to mitigate the safety and accessibility concerns that met towers and wind turbines pose to ag pilots.

PRETTY SLICK! *A new series of ads from NAAA puts the public in a pilot's shoes to illustrate the hazards wind turbines and unmarked towers pose for aerial applicators and other low-flying aircraft. See pg. 28 for full details.*

Under a new law in South Dakota, the upper third of this tower would need to be painted orange and white to help make it "recognizable in clear air during daylight hours."

Met Tower Marking Law Passes in South Dakota

Aerial applicators in South Dakota got some welcome news on March 26 when Gov. Mike Rounds signed House Bill 1155 into law, an act that requires the marking of certain anemometer towers used for wind energy testing purposes. The South Dakota Aviation Association (SDAA) has been working on the issue of met tower marking for two years.

Bryan Hauschild, president of SDAA and owner of Otter Aviation Inc. in Fergus Falls, Minn., carried the torch on the industry's behalf. Hauschild worked with State Rep. Jason Frerichs on the legislation and testified before the South Dakota House Commerce Committee. He had previously testified about the hazards of unmarked met towers before the South Dakota Aeronautics Commission.

It is hard to avoid something if you don't know it's there in the first place, which is why Hauschild calls unmarked met towers "the most imminent threat" to aerial applicators' safety today.

South Dakota's new law mandates that any meteorological testing tower 50 feet or taller located outside the boundaries of a municipality shall be marked, painted, flagged or otherwise constructed "to be recognizable in c lear air during daylight hours." The marking requirements apply to the met tower, guy wires and accessory facilities. Specifically:

1. The top one-third of the anemometer tower must be painted in equal, alternating bands of aviation orange and white, beginning with orange at the top of the tower and ending with orange at the bottom of the marked portion of the tower;

2. Two marker balls must be attached to and evenly spaced on each of the outside guy wires;

3. The area surrounding each point where a guy wire is anchored to the ground must have a contrasting appearance with any surrounding vegetation;

4. One or more seven-foot safety sleeves must be placed at each anchor point and shall extend from the anchor point along each guy wire attached to the anchor point.

HB 1155 originally sought to create an online registry of meteorological testing towers in the state, but that measure was tabled in the House Commerce Committee due to concerns from the wind industry. Frerichs went back to the drawing board and decided to push for required marking after working with a group of stakeholders that included representatives from the aerial application and wind industries, South Dakota Aeronautics Commission and state assembly.

Hauschild is happy with the overall outcome, even though aerial applicators didn't get everything they wanted. "We gave up a lot to keep the bill going and the wind industry took a lot," he said. "I feel it was a good compromise, although being part of the working group I know that all facets of aviation safety were not addressed in this bill. … After the amended bill was brought forward one of the House Commerce Committee persons said, 'This is how it's supposed to work.'"

The marking requirements go into effect immediately for new met towers erected in South Dakota. Companies have one year to bring preexisting met towers into compliance.

Some wind energy developers have balked at the cost, which is one of the reasons lighting was not required in

the bill. Failure to comply with the new marking standards will result in a Class 2 misdemeanor. The penalty typically involves a small fine.

It remains to be seen how well the new law will be enforced in South Dakota. That could be a moot point, however, since companies generally seek to limit their liability for negligence. Wind developers that ignore the law could be on the hook for damages that far exceed the cost of compliance if an aviation accident or fatality occurs as a result of an unmarked met tower.

"SDAA's goal of being proactive today hopefully will mean all of us are active in this industry tomorrow with the goal of no met tower accidents or fatalities," Hauschild said.

SDAA also is concerned about the placement of wind turbines on prime agricultural land, but its board made a conscious decision to focus on addressing met towers first. Now that some form of state-mandated met tower marking has been achieved, the association can explore other related interests. Long-term goals include lighting all wind turbines, the ability to turn off a wind conversion facility during application, linear placement of wind turbines "and a database to find towers or better yet include them in our mapping programs so the hazard is on the map when you print a work order," Hauschild said.

Wyoming Establishes Met Tower Registry

Last year, the state of Wyoming enacted legislation that created the Wyoming Meteorological Towers Reporting System. Wyoming's legislation, Senate File Bill 0143, served as the basis for the original met tower bill Rep. Frerichs introduced in South Dakota.

In addition to detailed reporting requirements, the Wyoming law stipulates that any met tower 50 feet or taller erected, raised after being lowered, purchased or leased on or after March 4, 2009, must be marked in a manner that makes the tower "recognizable in clear air during daylight hours from a distance of at least 2,000 feet."

It seems fitting that high towers would have to exceed a high bar; how companies go about achieving that standard is up to them. For example, companies can utilize lighting, marking, painting, flagging—whatever it takes to make the tower visible from 2,000 feet.

The Wyoming Department of Transportation oversees the online registry. Anyone owning or leasing a meteorological testing tower must report the structure's exact location, county, height, elevation at ground site, owner and the method used to make the structure visible. Ownership details are kept in confidence.

MAAA Zones in on Model Zoning Ordinance

Terry Stieren, executive director of the Minnesota Agricultural Aircraft Association (MAAA), has been one of the most outspoken proponents for responsible wind energy development within the aerial application industry. MAAA and its members are concerned about met towers as well as wind turbines.

"Met towers are difficult, if not impossible, to see in many cases," Stieren said. "We have taken aerial photographs at distances of 500, 300 and 100 feet from several of these towers in Southern Minnesota, and the photographs demonstrate, dramatically, how these unmarked, unlighted, towers blend in with the surrounding landscape and become real hazards to aviators."

Stieren is a member of the Wind Energy Aviation Safety Working Group, a coalition comprised of wind energy developers, wind energy construction companies, Minnesota aerial application firms, medivac providers, Minnesota DOT's Office of Aeronautics and the FAA. The group met in March of 2009 in what began as an informal information exchange but developed into something more. The stakeholders readily agreed towers under 200 feet pose a hazard to aviation and that something needed to be done.

As the working group continued to meet over the last year, it reached consensus on a set of lighting and marking standards for met towers and developed a model zoning ordinance for met tower marking, painting and reporting. To their credit, Stieren says wind industry developers in

"We have taken aerial photographs at distances of 500, 300 and 100 feet from several met towers in Southern Minnesota, and the photographs demonstrate, dramatically, how these unmarked, unlighted, towers blend in with the surrounding landscape and become real hazards to aviators."
—Minnesota AAA Executive Director Terry Stieren

The U.S. Department of Energy has suggested that wind could supply up to 20 percent of the nation's energy by 2030.

Minnesota have taken "a real position of leadership with respect to the issue of met tower marking and mapping."

"I have significant appreciation for the wind energy folks who chose to voluntarily get involved in this effort. They could have easily turned their backs and walked away," she continued. "At times we've had to agree to disagree on other issues related to wind farm development, but with regard to the met towers we've had a good working relationship."

In February, representatives from the working group approached the Minnesota Association of County Planning and Zoning Officials (MACPZO) about their model zoning ordinance. Zoning and planning commissions across the country are struggling to adopt policies that balance the concerns of residents who derive no financial gain from wind energy turbines with the desire to encourage wind energy development within their jurisdictions.

MACPZO officials acknowledged that current tower zoning ordinances consider the safety of individuals on the ground more so than the safety of individuals in low-flying aircraft. They also expressed general support for the model ordinance. The only concern the association raised was about the mandatory reporting requirement for towers under 200 feet. MACPZO wanted assurances that any requirement would involve a streamlined reporting and mapping process. According to Stieren, the wind energy/aviation coalition is working with the FAA and Minnesota DOT–Aeronautics to develop a mapping system to serve as a central repository where aviators can easily find met towers by longitude and latitude.

NAAA's Wind Initiatives

Over the last year, NAAA has worked with federal legislators seeking to include an amendment to the FAA Reauthorization Act that would require the FAA to conduct a study on the effects that wind turbines have on aviation sites and operations. The proposed study was authored by Congressman Randy Neugebauer (R-TX) of Texas and included in the FAA reauthorization bill (H.R. 915) that the U.S. House of Representatives passed in 2009.

In March, NAAA learned that the wind turbine study was unlikely to be included in the Senate version of the FAA reauthorization bill due to concerns raised by wind industry lobbyists. According to a Senate source, the American Wind Energy Association expressed concern that an FAA study could lead to a static document that stands in the way of wind energy development. As it attempts to preserve the amendment, NAAA has been quick to point out that aviation groups are only asking for a nonbinding study. Like wind

"I think the one thing we can all agree on is that people who are contemplating selling their land for wind farms should be informed of *all* the consequences—i.e., aerial application may not be a future option for pest control on their land," Stieren said. "But it's up to us as an industry to speak up for ourselves. We can't wait around for the wind industry to do it for us."

turbines themselves, however, NAAA is up against a formidable obstacle in the American Wind Energy Association.

Meanwhile, NAAA continues to reach out to legislators and other relevant entities to educate them about the impact of wind energy development on agricultural aviation. Last summer, NAAA met with the USDA's Rural Business Cooperative Service and the Rural Utilities Service. NAAA urged the USDA to educate farmers and landowners about the industry's concerns that placing wind energy towers on cropland may jeopardize the safety of ag pilots and restrict their ability to treat farmland with aerial application.

NAAA has met with Department of Energy officials expressing similar concerns about the Department of Energy's policies promoting wind energy.

More Public Outreach, Education Needed

The dangers unmarked met towers pose to aerial applicators and other low-altitude pilots are plain to see once people are made aware of the problem, but the issue is so far off most people's radars that they often confuse meteorological testing towers with wind turbines. The onus is on aerial applicators and their Agricultural Aviation Associations to inform the public about the hazards met towers and wind turbines pose for pilots and get them to understand the difference.

That was an issue Hauschild ran into repeatedly. "I have a hard time communicating that I am talking about met towers and not turbines," he said. "Most of the feedback I hear is about turbines. So when working on this bill I stated over and over again that I'm talking about met towers and

not turbines. To understand our safety concerns people need to differentiate the two."

Once people understand the difference, it usually isn't long before they have an aha moment. "Every person I have communicated our industry's concerns to, whether it be wind, the farmers, local and state governments, or even other non-ag pilots, have been understanding of the issue," Hauschild said. "Their eyes light up and they say, I never thought of that. Once you place the idea in their heads they all have been willing to help out."

The issue of wind turbines on prime agricultural land is trickier. "That question certainly opens a big can of worms," Stieren said. "I think the one thing we can all agree on is that people who are contemplating selling their land for wind farms should be informed of *all* the consequences—i.e., aerial application may not be a future option for pest control on their land. But it's up to us as an industry to speak up for ourselves. We can't wait around for the wind industry to do it for us."

Wind energy development is going to continue no matter what. Where and how met towers and wind turbines are sited is a matter for discussion, if aerial applicators are willing to have the conversation. The ads and radio scripts NAAA developed for its met tower/wind turbine education campaign should help get things started. Operators should also consider adding cautionary language to their invoices.

"We're not doing ourselves any favors by staying silent," Stieren said. "We need to make growers aware of what's going on out there." ■

The Bold Print

Some applicators are prominently including cautionary language about wind towers on their pricing lists and invoices. Here are two examples to consider adding to your invoices.

- **Wind Energy Development is proliferating in our state. If you or your neighbors are contemplating a wind energy development, please contact [fill in the blank] immediately. Wind energy development may reduce or eliminate the availability of aerial crop protection services.**
- **Fields nearby or with erected wind turbines or meteorological testing towers will not be sprayed if inaccessible; if accessible they will include significant surcharges.**

Consequences of Wind Development Aren't Always in Landowners' Control

By Jay Calleja
Manager of Communications

At this time three years ago Blue Earth Aviation in Blue Earth, Minn., was busy providing aerial application services to a 2,000-acre tract of farmland owned by a longtime farming customer. That changed after the farming family signed a lease agreement with a wind energy developer and several wind turbines went up on their property.

The wind developer erected 15 wind turbines on the farmers' property, far fewer than the 50 turbines they had originally hoped for, but more than enough to prevent Blue Earth Aviation from safely accessing their land to perform aerial application treatments.

"Just those 15 turbines were enough to basically [eliminate] the 2,000 acres of farmland that we used to be able to fly on," Tim Steier, Blue Earth's owner and operator, said. "That's a wind farm that we absolutely will not fly in anymore. It is totally off limits."

Steier added, "Oddly enough, these brothers didn't realize that there was going to be fields that I could never treat again."

It's not just growers who allow wind turbines on their land that could lose the option—and advantages—of aerial application. Their neighbors could be adversely affected as well.

"Sometimes it may be a farm that's in the middle of four or five turbines that completely surround it and there's just no safe way to go back and get at that farm that's in the center, even though it doesn't have a turbine on it," Steier said. "It's totally surrounded by turbines, so there's no safe way to approach it anymore."

Even in cases when aerial applicators decide a field located in or around wind turbines is safe to access, they typically will charge more because they have to carry lighter loads and the field takes longer to spray because of the time it takes to maneuver around the wind turbines.

A Deeper Problem

The loss of aerial application services isn't the only negative consequence that wind turbines can have on farmers' productivity. A deeper problem exists, literally. Steier has had conversations with friends and former customers who have lamented a major consideration they overlooked before signing their lease agreement: the impact of wind turbine construction and maintenance on their farm drainage systems.

"Farm drainage will make a farm a top producer or a poor producer," said Steier, who owns 400 acres of farmland in southern Minnesota with his wife Barbara.

Many soils in the Upper Midwest and other regions in the U.S. have poor natural internal drainage. Minnesota, for example, has large areas of poorly drained soils, according to a report authored by Lowell Busman and Gary Sands, two University of Minnesota Extension Service representatives. In a subsurface drainage system, pipes are strategically placed in a field to remove water from isolated wet areas or installed in a pattern to drain an entire field.

"One of the major thoughts that they completely had forgotten about," Steier said, "is what the effect of this construction"—including underground fiber optic cables, access roads to connect the wind turbines and soil compaction from the weight of the cranes—"how those were all going to affect their farm drainage systems that they've spent years and years perfecting."

That's not to say wind companies won't repair damage caused by wind turbine construction, but what the developer

is contractually obligated to cover may not match the amount of repairs the landowner needs to fix the farm drainage system.

"The farmers that we are familiar with thought that the wind developers were going to do a 100 percent job of taking care of repairing any farm drainage issues that were disturbed," Steier said. "The problem is their contracts weren't clear enough on those farm drainage repair issues."

Due to stipulations in their lease agreements, namely, gag orders, it is difficult to find farmers willing to go on the record about disruption to their farm drainage systems or other issues associated with wind energy development. However, Bill Noeske, chairman of the board for Peak Wind Development LLC, made a telling statement at a January 15, 2009, Stutsman County (N.D.) Planning and Zoning Commission meeting about wind turbine siting.

"After seeing the project get built to the north of us, even myself, I personally would just as soon not have any turbines on my land and just be part of a pool [of landowners that share revenues from a wind energy project] because they raise such havoc with your land that they don't like to tell you about," Noeske said. "I think they destroy your land myself—unless you have local control."

Noeske, a grain farmer and partner in a family seed business, partnered with a group of local landowners in Barnes County, N.D., to form Peak Wind LLC in 2007. Peak Wind represents more than 80 farmers and other landowners that pooled about 30,000 acres of land together in an effort to capitalize on wind energy development and retain as much local control as possible. RES Americas and Peak Wind are jointly developing a proposed community based commercial-scale wind energy project in Barnes County known as the Glacier Ridge Wind Project.

The bottom line: "You've got to protect yourself," Noeske said.

The Incredible Hulking Presence Next Door

While a majority of the public favors domestic wind energy development, such enthusiasm dampens for many residents situated near wind turbines once they realize the profound effect wind turbines can have on their quality of life. Complaints about noise and "shadow flicker" are well documented. (According to Wind Engineers Inc., shadow flicker refers to alternating changes in light intensity due to the moving blade shadows cast on the ground and objects, including windows at residences.) One physician has even gone so far as to classify it as "wind turbine syndrome" with symptoms that include sleep disturbance, ear pressure, vertigo, nausea, blurred vision, panic attacks and memory problems. Wind energy advocates contend there is scant evidence for "wind turbine syndrome."

Whether it's a syndrome or merely a nuisance, the hulking presence of 400-foot wind turbines is sure to affect people who live near them in ways both real and perceived.

"We're hearing it every day from our neighbors to the north that got built on, even the ones that are in that project," Peak Wind's Noeske said. "They were told that noise wasn't going to be a problem. I've heard from two farmers now that they're surprised how on a clear morning they can hear them whooshing in the yard. … So the noise is an issue. All these things are issues."

Stuck in the Middle

For neighboring farmers and other residents, the pain associated with being situated near a group of wind turbines usually comes without any of the gain.

Bill Durdan has farmed northeast of Grand Ridge, Ill., for 43 years. He lives and works on 200 acres of farmland, where he grows corn and soybeans. Invenergy, the largest independent wind energy developer in the U.S., has installed hundreds of wind turbines in his area.

During the first phase, 66 turbines went up east of Durdan's property. Initially, the closest turbine was about two and half miles away. Invenergy installed three more turbines within a half-mile east of his farm and plans to put in more. Eventually, Durdan's access to aerial application will be seriously hampered.

"On three sides I would have one, two, three, four, five, six, seven, eight all at a U-shape around my farm that would all be within a quarter mile around my farm," Durdan said.

> "I personally would just as soon not have any turbines on my land … because they raise such havoc with your land that they don't like to tell you about. I think they destroy your land—unless you have local control."
>
> —Bill Noeske, chairman of the board for Peak Wind Development LLC, at a January 15, 2009, Stutsman County (N.D.) Planning and Zoning Commission meeting

Durdan asked Invenergy to eliminate two turbines that would be the closest, directly across from his house. Although he has received verbal assurances, at press time, Durdan has yet to receive the written commitment he has asked for from Invenergy pledging to eliminate the two turbines in front of his house. A project developer told him the company was in ongoing negotiations with the owner of the land where the turbines will be sited.

When pests or disease threaten a crop, time is critical. Four years ago, Durdan's crop consultant discovered aphids in his field. It was six weeks before harvest. "There was no way you'd go through it with a ground machine because you'd destroy the beans, so we had to get an airplane," Durdan said. "We discovered the problem in the afternoon and he had an airplane there at seven o'clock the next morning, and naturally it averted a disaster."

Once all eight turbines appear on three sides of his farmland, Durdan knows time won't be on his side. He heard two aerial applicators explain how wind turbines will alter the way they render services at a meeting.

"They said, 'It's just common sense that if there's an outbreak, we're going to spray the areas where there are no turbines first. That's where we can do the most acres. That's where we make our money. And then when we get them done, we're going to come to the farms that have turbines around them and they will be assessed according to how dangerous the job is.' You can't blame a guy for saying that," Durdan said. "He can't just give his life up for a turbine."

If he's able to rely on aerial application at all, he knows it could soon come at a premium. "When I'm surrounded by these turbines, there's going to be a surcharge. I don't blame the guy running the airplane. But who [is] going to pay this surcharge?" Durdan said. "I don't mind [charging a surcharge to] the guy that's got the turbines. He's getting paid for those turbines."

"I'm a non-participant, and I just want to be able to farm my farm," he said.

Durdan has spoken with the La Salle County (Ill.) Zoning Board two or three times and with individual members on the zoning board. "There are four or five of them who'll agree with me. And they've said, 'We know something's got to be done for the non-participant.' But I've had no luck with the county board at all."

"I said to them, 'I'm not trying to run the turbines out,'" Durdan recalled. "One county board member said, 'We've got to have energy in this country.' I agree with that. But I said, 'Yes, but I am three miles as the crow flies from a nuclear power plant. Every Tuesday of the month, the sirens go [off] at ten o'clock. If they go any other time my wife and I are supposed to get in our car and drive west.' I said, 'Two years ago two pipelines went right down through the middle of my farm—a 40-inch and a 12-inch pipeline.' If you know what that consists of, it was a … mess, and now I'm surrounded by turbines. I said, 'I think my wife and I our doing our share for energy.'"

It's an issue that hits close to home for Durdan, who launched into an animated discourse about shortsighted politicians, naïve constituents, absentee landowners and how wind energy development is altering the agricultural landscape.

"It seems like in this county they can do exactly what they want," he lamented. "They've got the unions behind them, they've got all the newspapers behind them, they have all the city officials from the various townships behind them—how do you fight them?

"A lot of the farmers, they give me sympathy, but as long as it doesn't affect them where they can't spray or they're going to have to pay a surcharge, then they get excited about it, but there's so many farmers—they're not many farmers anymore. It's the same with the landowners. The majority of landowners that are putting these turbines up, they're not even from around here! They're from Aurora, they're from Chicago. They're businessman, they're insurance tycoons, they're doctors, they're lawyers that are buying this farm ground, and they don't [care] about the farm ground, they don't [care] about the tile, they don't [care] about anything. All they're interested in is that bottom line. You got me started."

"I know I'm getting carried away here a little bit, but you know, it's a sore subject," Durdan said. "It's frustrating to see what's happening. I'm just an old farmer that just likes to keep the farm the way it was, the way it should be, and I would have no grudge at all if this was poor land. But this is some of the best land in the world! And they're putting these turbines in and they're burying that cable, threading in any direction 48 inches through the farm ground and paying people to

"I'm a non-participant, and I just want to be able to farm my farm."

—La Salle County, Ill., farmer Bill Durdan, who could eventually be surrounded by eight wind turbines on three sides of his farm

go through them, destroying tile and everything else. It's just ridiculous."

More Education Needed

Steier believes aerial applicators need to do more to educate row-crop farmers about the overall effect that wind turbine construction can have on farmland and growers' ability to maximize productivity—even if it is an unpopular sentiment. "It's one thing to put them into the open rangeland of the west, I don't see any problems there," he said. "But when we start talking about putting them in the row-crop farming land of the Midwest that we spent so much money as a society getting that farmland in shape to be farmed with farm drainage systems and rural drainage systems—to see what's happening now to those areas, that's totally a mistake that that's ever been allowed to happen. Too many groups have never heard the whole story about the negative side of this."

Aerial applicators can assist their customers by encouraging them to think seriously about the potential upsides and downsides to wind power development. Ultimately, the decision to allow wind turbines on farmland rests with the properties' owners, and rightfully so. That control can prove to be fleeting, however. Once they sign a 30- or 40-year lease agreement with a wind developer, the decision-making pendulum swings decidedly in the wind developers' favor.

It's a long-term decision and, like marriage, the landowner is committed to it for better or worse.

"These things aren't like parking something on your property that you can drive away tomorrow," Steier said. "When they pour 100 yards of cement in a pile in the middle of a field and put that million and a half dollar, two million dollar turbine up there, it's going to be there for a long time." ■

Confronting GOLIATH

NAAA and an Army of Davids Launch a New Campaign About Big Wind's Effect on Agriculture and Aviation

Back when anchor Dan Patrick narrated "SportsCenter" on ESPN one of his signature lines when an athlete was on a hot streak was, "You can't stop *him*, you can only hope to contain him." With apologies to Mr. Patrick, aerial applicators can't stop wind energy development, but they would like to contain the adverse effects of it on aviation and agriculture. That's the mission of a new grassroots campaign NAAA is waging in support of responsible wind energy development.

Landowners are being asked to make crucial decisions that will impact farmers and their neighbors for years to come. It's up to everybody in the industry—NAAA, its state association partners and aerial applicators—to educate the public about the consequences that ill-planned wind energy development can have on agriculture and aviation. As a point of fact, people inside the industry are well aware that transmission lines, wind turbines and hard-to-see met towers are obstructing the airspace in which aerial applicators work, but the public is not. For the last two months, NAAA has been working behind the scenes to create an arsenal of advertising and P.R. material to help members communicate these concerns to a variety of stakeholders.

Introducing NAAA's Wind Tower Education Ads

The ad slicks that appear before you are one of the cornerstones of NAAA's new campaign to raise awareness about the issues surrounding wind turbines and meteorological towers proliferating across America's farmland. Target audiences include:

- Farmers and owners of farmland
- Local, county and state policymakers
- Electric power generation companies and rural electric coops
- General public

The ad series takes a two-pronged approach. Some ads focus on the dangers of unmarked testing towers to pilots of low flying aircraft; others address the safety and accessibility concerns associated with wind turbines. Collectively, they illustrate how poor tower marking and improper wind turbine siting put pilots' lives and farmers' livelihood at risk.

Each ad closes with the tagline "Let's Be Fair About Sharing The Air" and an invitation to learn more about the impact of wind towers on aviation and agriculture at www.agaviation.org/towers.htm. Anyone interested in learning more about the industry's "towering" problem will find a wealth of information and resources when they visit the new towers section of NAAA's Web site.

The ad slicks are available for member use in color and black and white—in a variety of sizes suitable for any budget. Space is available to imprint your company's name or logo with or without NAAA or your state association's name next to it. The ads are ideal for placement in local newspapers and trade publications, but even something as simple as an operation including one along with its customer invoices constitutes as outreach.

Planting the Seeds

NAAA's Communications Committee planted the seeds for this campaign at the Spring Board Meeting in February. The committee expressed a desire to take a more proactive approach to communicating to the public on matters of vital interest to the industry. Specifically, the committee requested "ready to read" radio scripts and "ready to print" material that members could supply to media outlets, as well as talking points and handouts to share with their grower customers. To that end, our wind tower ads and similarly themed radio scripts are available for members' use on NAAA's Web site.

NAAA would like to extend special thanks to NAAA Operator Richard King and his son Kyle, of Double K Spraying Service in Binger, Okla., for making the aerial photography in this ad series possible. Kyle transported a professional photographer in one plane while Richard made several passes through a wind energy complex in Oklahoma. Thanks to Richard's skillful flying, the photographer was able to capture several hair-raising images that vividly convey the hazards wind turbines and unmarked towers pose for pilots. The Kings devoted almost a full day to the photo shoot, donating their time and the expense of operating their aircraft to the cause.

We also would like to thank NAAA President Brian Rau, Communications Chair Gaylon Stamps and Minnesota AAA Executive Director Terry Stieren for their help in shaping the messages used in the ads.

To view or download the entire series of high-resolution PDFs, visit www.agaviation.org/towers.htm. If you are interested in using these ads in your local media and require further assistance, please contact Jay Calleja at (202) 546-5722. ■

NAAA has created a series of ad slicks for members to use in their markets that raise awareness about the worrisome effects of wind energy development on agriculture and aviation. For more information, visit www.agaviation.org/towers.htm.

Wind Farms: *Understanding Your Options*

By Loyd Brown, President, Hertz Farm Management, Inc.

In recent months, we have seen wind farm developers aggressively targeting farmland throughout the Midwest with long-term leases for potential wind turbine sites. Pressure to create wind farms will continue to accelerate as power companies face mandates requiring an increasing percentage of renewable resources be used for energy production. The mandates also indicate how much of that energy must be provided by wind.

It is a matter of keeping up with the increasing demand for energy. In addition, the American Recovery and Reinvestment Act of 2009 signed into law by President Obama on Feb. 17, 2009, extended the Production Tax Credits and Investment Tax Credits until Dec. 31, 2012. These credits have been critical to the growth of the renewable energy sector.

There is a wide range of compensation across the Midwest for wind turbine easements dependent upon a variety of factors including:

- The size of the intended wind turbines and amount of electricity generated.
- Site proximity to large population centers that create demand.
- Competition from wind energy companies.
- Capacity of the local transmission grid.
- Wind resource.

The current typical compensation offered to Midwest landowners ranges from $4,000 to $10,000 per year per turbine with higher amounts for specific localized unique circumstances. Although certainly attractive, leasing your wind rights can also have a negative impact on your farming operation. The following are a few questions and key issues that need to be considered:

- Leases are generally long term in nature that initially begin with 20- or 30-year terms but include automatic renewal clauses that may extend the lease up to 90 years.
- Is there a sunset clause that requires the developer to build within three or four years?
- Will the concrete pads that anchor the turbine and/or the access roads be an obstruction for surface drainage or tile drainage?
- What are the provisions for the removal of the turbine and access roads at the end of the agreement?
- Can the adjoining fields be sprayed by air and are there air space or height restrictions?
- Will the wind turbines or access roads potentially eliminate the possibility of growing seed corn or other specialty crops?
- What type of lease payment is being offered and how will it be adjusted for inflation?
- How will the presence of a wind turbine or its lease payment structure influence any future sale or development potential of the property?
- Will the turbines create a noise nuisance and are there concerns about the visual changes on the landscape?
- Does the lease provide for crop damage during the construction stage or in the years after construction due to compaction?
- What is the compensation for the electrical distribution lines?
- Is there a signing bonus or a provision for attorney fees, and what will the per acre per year payment be during the development?
- What input will you have on the location of the turbines and roads to minimize the impact on the farming operation?
- Will the turbine developer carry liability insurance that covers the landowner during construction and during the term of the lease?

It is imperative that landowners consult with their attorney, farm manager, banker and others that can offer assistance to maximize returns to the owner. Your decision will have major consequences for you and your land that will affect current and future generations.

To locate a farm management expert to help you with these and other decisions, contact ASFMRA [American Society of Farm Managers and Rural Appraisers] at www.asfmra.org. ■

Editor's Note: *This article was originally written by Loyd Brown, president of Hertz Farm Management, Inc., for the American Society of Farm Managers and Rural Appraisers News in* AgProfessional *magazine. It is reprinted with permission from* AgProfessional *magazine.*

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			Compton Flying Service	OK	(888) 336-3924	Trisponder Inc (Australia)		+ 61 2 9597-1247

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"Until that thing

By Rick Boardman
Boardman Aerial Spraying, Henderson, Neb.

Last year, by the middle of August, we were caught up at home, so two of my pilots and I went to Minnesota to help some friends who were falling behind with their spraying. When I got up there, we sprayed one evening and then the weather got bad. We sat for almost three days. It was really windy and rainy. We just hung out at the hotel until the weather cleared.

On August 16, we finally got out late in the afternoon. I took off in my Thrush 660 intent on spraying several soybean fields. I'll never forget what happened next for as long as I live.

Panic Sets In

I had a bunch of little fields to do, and I was about 20 to 25 miles east of Worthington, Minn. I was about halfway through the load when I got to the next field. I circled it, looked it over, and made my first pass on the edge. As I came out the end, I pulled up, starting into my turn. Shortly after I pulled up and turned, I heard a loud pop. I felt it too. At first, I didn't really know what it was, but then I realized that my control stick wasn't attached to the tail anymore.

I thought I had hit something initially, but I knew I had surveyed the field and there wasn't anything there. I looked back at the tail just to make sure and everything was there. I rolled the wings level, but it just kept climbing. I started shoving the stick around. Shoved it forward, it didn't do anything. Pulled it back, it didn't do anything. At that point, I knew I was disconnected.

The plane kept climbing for about 500 feet. I probably got close to 800 feet as it was climbing, and as I started to lose airspeed it just started to nose over and head towards the ground. All these things were racing through my mind. At that

Rick Boardman stands next to his Thrush 660 before the elevator control broke last August.

His plane may have taken it on the chin, but Boardman walked away unscathed after slamming into the runway nose first and skidding into a field. "It was actually a pretty good landing considering I was running 120, 125 miles per hour," he said.

quits moving keep flying

no matter what."

Rick Boardman shares the incredible true story of how he survived an emergency landing after the elevator control on his ag plane broke

point, I was trying to figure out what was going on, but I was so panicked that I pretty much assumed I was going to crash.

I was scared to death. The only thing I could do was apologize to my wife for what was about to happen. I apologized to my folks. My brother Bob was killed three years ago in a plane accident, and I was very upset that it was going to happen to my folks again. That bothered me more than anything. They couldn't hear me, but I had to let it all out. There was a lot of praying, a lot of everything.

Suddenly, I went from sheer terror, panic—trying to figure what to do—to extremely calm. It's almost like I had come to terms with what was going to happen, that it was okay at that point. I was a hundred percent convinced I was probably going to die. I just didn't know where it was going to happen yet. But I got to that spot where I was praying, apologizing to my wife and kids, my folks. I was talking to my brother Bob asking him to help me do what I needed to do. Initially I started sweating and shaking, and then I went totally calm. It just happened in a split second.

Good Adjustments, Good Decisions

As I headed towards the ground, I decided I needed to do something to try to get the airplane to respond. I decided to add a little power to see if it would lift the nose, and it did slowly. I was probably 300 feet from hitting the ground when it started to lift back up. I was heading back uphill. I played with the throttle for 15 or 20 seconds trying to get the airplane stabilized.

Two of my pilots, Dave Haddon and Kevin Hansen, were up there working with me, so I hollered at them on the radio. There was not much in the way of houses in the area I was

"Considering I totaled it, the airplane structurally handled it very well," Boardman said. "I was amazed at how stable it really was, given I had lost such a major component to the aircraft." Boardman's Thrush 660 is shown here after he circled back to Worthington Municipal Airport in Worthington, Minn.

spraying. It was pretty empty. I told them I had a mechanical problem and I was probably going to crash, but I was in this general area. Dave and Kevin started heading my way.

Dave hollered at me and told me to try the trim lever. I did, and it helped. I could add throttle and that power would lift me up. Then I'd back off and it would go back down. Once I found the happy spot between the trim and the throttle, that's what I worked with, but I had to continually adjust. Between the throttle and the trim, I was able to somewhat control the airplane. It was porpoising pretty bad, but it was somewhat controlled.

I was headed toward Jackson, Minn., at the time. I was only about five miles from Jackson's airport, but I hadn't been there in few years. I couldn't remember exactly how the runway was laid out. Plus, I knew it was going to be a crosswind. I didn't really want to deal with that. I knew if I went back to Worthington I had a long runway. I also knew I had a direct headwind and wouldn't have to go out and do a bunch of turning. I could just angle right in on that runway, and the wind was out of the west, northwest. So, I decided to turn around and head back. I did a really big, gradual turn, but I got her turned around and headed back toward Worthington. I was about 30 miles from the airport by the time I turned around.

As I'm heading back, things were fairly stable and I started evaluating what I needed to do next. I still had 350 to 400 gallons on board the airplane and three-fourths fuel, so I started to evaluate whether to get rid of the load. There's a video on YouTube of an Air Tractor and they dumped their load too quick. It was on a fire demonstration, and it climbed up real steep, stalled and rolled over. I'll never forget seeing that video, and that's what went through my mind. I thought, man, if I do that, I'm going to have the same problem, except I have no control. I would have had no way to keep the nose from pitching up, and the airplane would have just rolled over and stalled out. So I kept the load.

Surprisingly, the next 10 minutes on the way back to the airport were fairly calm. It was almost like I was just flying the airplane as if nothing was wrong. Then all of a sudden, it would start porpoising around and I would have to reset everything. It didn't take much of a bump in the air to change things.

I remember seeing good prop blades going around, and as the prop was rotating I was seeing the bent ones come back up. Everything felt like it was going in slow motion.

By the time I was halfway back to Worthington Dave was right beside me watching. He did the radio work. He called the airport, which unfortunately nobody answered, but he was there. It was pretty calming to have somebody else there.

I still wasn't convinced I was going to live through it, but I was calm. At some point during that ride back to the airport, I told Dave and Kevin, "Hey, if this doesn't turn out the way it should, please tell my wife and kids I love 'em." It was a pretty emotional deal but it was also very calm.

A Bumpy Landing

I had to decide how I was going to get the airplane on the ground. Obviously, I had the choice of landing in the grass or trying to land on the runway. There had been so much rain in the two days before that I knew I couldn't land it on the grass because it would have dug in and flipped over. So I thought I'd try landing it on the runway.

I also figured out that I couldn't get below a certain speed. I'd get down to around 120 miles per hour and the airplane would become a lot harder to control, so I knew that I had to touch the runway at a high speed to at least maintain control to get it to the ground.

About three miles from the airport I picked a spot on the runway that I wanted to hit, and I just slowly started coming back on the power. I'd add a couple of degrees of flaps and readjust all the power settings and the trims to get it to stabilize again. I just kept doing that until I had full flaps. But once again, I'd get down to about 120 or 125 miles per hour and it would start to go out of control. I just kept doing that. I just picked out that spot on the runway and kept coming downhill until I touched the runway.

When the wheels touched, I really thought I was going to get it landed and not hurt anything. It was actually a pretty good landing considering I was running 120, 125 miles per hour, but once my tail started to come down from slowing down, the airplane just shot back in the air because it wasn't done flying yet. At that point, I'm chasing the throttle—between the two control inputs I had, I was trying to chase that to keep it on the ground.

It shot back in the air 10, 15 feet and then it nosed over and came down. I bounced really hard that time, and it shot me up in the air maybe 30 feet. I knew that it was getting uglier, so at that point I pulled the throttle completely off because I was still trying to control the airplane even though it was

Boardman earned the respect of his peers for his heads-up flying.

a losing battle. Everything I did was happening too slowly. Nothing would respond quickly enough. I stuck my left hand on the dash because I could see I was going to fly in pretty steep. I was about to hit the nose hard, and I just braced on the dash with one hand and was still holding the stick with the other hand.

The plane hit the runway hard. The impact blew the landing gear out. I remember seeing good prop blades going around, and as the prop was rotating I was seeing the bent ones come back up. Everything felt like it was going in slow motion.

When the gear broke out, it ripped the bottom of the hopper off, and the load portion dumped on the runway. At that point, the airplane quit bouncing and stayed on the ground, and I slid for a couple of hundred feet. The plane slid off the runway.

When it quit moving I started shutting off all the switches and levers. I shut off the fuel and jumped out because I knew I was losing fuel. It was weird, because where I ended up, the fuel was dumping out right on an electrical box for the runway lights. It was just odd that it happened that way.

I ran out on the runway. There were other airplanes around so I figured somebody would be landing soon. I had parts scattered all over the runway, so I started dragging those off the edge of the runway. I called the woman we were working for and told her that I had wrecked and to get somebody down to help us. Then I called my wife, Mary, and told her that I was all right, but I wrecked the airplane.

About an hour later, the back of my left leg started hurting. I wasn't sure why, but after we were getting ready to move the airplane I realized that when the bottom hopper ripped off that the dump lever slammed forward into my leg. I didn't even know that that's what hit me until I got back in the airplane, and I couldn't put my leg where it should have been. Other than that, my wrist was jammed. I had a sore leg for a few months, but that was it.

Considering I totaled it, the airplane structurally handled it very well. I was amazed at how stable it really was, given I had lost such a major component to the aircraft.

The whole experience lasted 15 or 20 minutes. From the time the elevator control broke to when I got it back to the airport, I had flown about 30 miles.

Survival Lessons

Everybody's situation is different. I don't know why I got lucky compared to other pilots that might have been in the situation. I don't feel that I'm a great pilot, but what I can say is don't quit flying the airplane. Until that thing quits moving you're still flying that airplane no matter what happens. Even if you're out of control, don't quit trying.

I was fortunate. I had two good pilots that were up in my area helping me, and it was very comforting to be able to talk on the radio and tell them where I was at, what was happening, and at least not feel like you're alone.

I felt I had a guardian angel with me. I felt my brother was looking over me that whole time. I think that's what calmed me. I was praying. That helped calm me down and got me back on track. I've talked to other guys that said they go through that terror scenario for a little bit, kind of like your world is coming apart, and then you just have to start working it.

You want to have some control of what's going to happen, so at least you feel like you're doing something. There's a lot of evaluating it in your mind of, 'Okay, what can I get by with? What can't I get by with? Don't do that. Do this.' You're always running scenarios through your mind the whole time.

I've had several guys that were amazed that I got it to the ground tell me how great a job I did. I don't know that I feel like I did all that great of a job. I just didn't want to die that day. I was doing everything I could to not let that happen. I guess there was skill involved too.

Having the load in the airplane also helped me. I think the weight kept me from bouncing so steeply in the air and maybe stalling out or ending up upside down.

It definitely turned out well. I don't feel like I did anything special, but I will say I didn't quit flying the airplane. I am proud of that. You always hear about don't quit flying the airplane. That's a fact. Don't quit. ■

NAAA/BASF

Agricultural Aviation Scholarship Takes Flight

Up to $7,500 in Training Money Available, Deadline to Apply Aug. 31

NAAA has finalized terms and conditions of the NAAA/BASF Agricultural Aviation Scholarship Program, and is now accepting nominations from Member Operators on behalf of interested applicants. The Association will award one scholarship valued at $5,000 each year and could award a second scholarship valued at $2,500 depending on the pool of applicants. The deadline to apply is Aug. 31, 2010. NAAA will recognize the winner, *or winners*, of the first Agricultural Aviation Scholarship in December at its 44th Annual Convention & Exposition in Savannah, Ga.

The goal of the Agricultural Aviation Scholarship is to strengthen the aerial application industry by helping NAAA Operators bring new pilots into the profession. Each applicant must be sponsored by an NAAA Operator, and scholarship recipients must use the proceeds for flight training or agricultural coursework at a university, college, community college or other institution of higher learning.

The Agricultural Aviation Scholarship is funded by an educational grant provided by BASF and administered by NAAA. Former NAAA President Doug Chanay announced at the 2009 Convention that NAAA and BASF had agreed to establish a scholarship. The general parameters were known at the time—scholarship recipients had to be sponsored by an NAAA Operator and use the proceeds for flight training or agricultural coursework—but NAAA's Membership Committee still needed to determine the exact criteria and develop the official application.

After a great deal of discussion, the committee came up with two parts to the application, one for the candidate applying for the scholarship proceeds and another for the NAAA Operator/Sponsor to complete. Every applicant will be required to submit:

- **A letter of recommendation from the NAAA Operator sponsoring the applicant.**
- **An essay of 250 words or less written by the applicant explaining why he or she is deserving of an NAAA/BASF Agricultural Aviation Scholarship.**
- **A one-page résumé or list of activities detailing all agricultural and aviation experiences, education and training.**

Another condition is that applicants must be enrolled, depending on how they would like to use the proceeds, in college or a certified flight training program by Aug. 31 in order to apply.

"The contribution from BASF means a great deal to the National Agricultural Aviation Association, but it is going to mean even more to the industry," NAAA Executive Director Andrew Moore said. "This scholarship will help sustain the aerial application industry by bringing in new pilots while also enhancing education and professionalism."

To learn more about the NAAA/BASF Agricultural Aviation Scholarship, review the application instructions available on pg. 37 and on NAAA's Web site, www.agaviation.org. Please call the NAAA office at (202) 546-5722 if you need clarification about any of the application requirements. ■

NAAA/BASF AGRICULTURAL AVIATION SCHOLARSHIP APPLICATION INSTRUCTIONS

This scholarship program is made possible through an educational grant from BASF Corp.
The scholarship program is administered by the National Agricultural Aviation Association.

BASIC INFORMATION:

Purpose: To bring new pilots into Agricultural Aviation and help fund their training. Scholarship is to be used for flight training or ag-related coursework at a university, college, community college or other institution of higher learning.

Amount: The **NAAA Agricultural Aviation Scholarship Program** will award up to two (2) one-year scholarships to a deserving, qualified student(s) participating in a certified flight training program and/or second-year or later student(s) enrolled in an agriculture, agribusiness or ag vocation program at a U.S. 2-year or 4-year program of study at an accredited junior college, college or university. The number of scholarships may vary from year to year. NAAA will award one $5,000 scholarship annually for the life of the program, and may award a second $2,500 scholarship. One award per applicant.

Eligibility: Paid employees of NAAA or BASF and immediate members of their families are not eligible.
Entrant must be sponsored by an NAAA Operator.
Prior NAAA Agricultural Aviation Scholarship winners are not eligible.

Sponsor: Each applicant must be sponsored by an NAAA Member Operator.
An Operator may sponsor only one applicant per year.

Application Process: Applicant should fill out ALL "applicant information," sign the form and give the application to the NAAA Operator Sponsor. The Sponsor will complete the sponsor form, add a letter of recommendation, and forward all this information via U.S. Mail, Fax or E-mail to:

NAAA Agricultural Aviation Scholarship
1005 E Street, SE, Washington, DC 20002
Fax to (202) 546-5726 • E-mail to information@agaviation.org

Application Checklist: By August 31, 2010, please postmark and submit the following materials:

- Completed application
- One (1) letter of recommendation from the NAAA Operator sponsoring the applicant. *(Letter of recommendation may be submitted in a sealed envelope.)*
- Essay of 250 words or less explaining why you are deserving of an NAAA/BASF Agricultural Aviation Scholarship.
- Current one-page résumé or list of activities detailing all agricultural and aviation experiences, education and training.
- Plus:

If scholarship proceeds are for flight training:

- Provide proof you are enrolled in a certified flight training program (ag or otherwise).

If scholarship proceeds are for ag-related coursework at a college or university:

- Submit an official transcript from applicant's college, junior college or university. The Registrar's Office can mail your official transcript to NAAA or place it in a sealed envelope so you can mail with your application form. (GPA must be 2.5 or better on a 4.0 scale at the time of application to be eligible for NAAA scholarship).
- Provide proof that you are seeking an undergraduate or graduate degree in an agricultural, agribusiness or an ag vocation field (transcript may suffice; consult your registrar or department office for more information).

All applications must be received by **August 31** to be eligible for scholarship funds available for the following calendar year (January–December).

Applications will be reviewed and winners chosen during the Fall NAAA Board Meeting by the NAAA Membership Committee.

Winners will be notified by November 12. Winners will be publicly announced at the NAAA Annual Convention in December.

The decision of the NAAA Membership Committee is final.

Payment: A tuition bill must be presented verifying enrollment of the applicant. If tuition has been paid in full, upon proof of such payment, NAAA will remit payment to the scholarship recipient. Otherwise, the scholarship will be paid directly to the appropriate school before the recipient's training/coursework begins or resumes.

Duration: BASF and NAAA have agreed to continue this scholarship program for a minimum of three years, 2010, 2011 and 2012.

Revisions: NAAA reserves the right to review the conditions and procedures of this scholarship program and to make changes at any time.

NAAA/BASF AGRICULTURAL AVIATION SCHOLARSHIP APPLICATION

PART 1
APPLICANT INFORMATION:

Name:_____

Address:_____

City, State, ZIP:_____

Phone: _____ E-mail:_____

Name of University, College, Community College, Flight School or other flight training program:

_____

Address:_____

City, State, ZIP:_____

Phone: _____ Enrollment Contact: _____

Course of Study:_____

Description: _____

_____

Length of Program: _____

I am (choose one):

____ Currently enrolled_____ Enrolled beginning: (date course begins) _____

I expect to complete this course of training or study by (month/year) _____

In 250 words or less, please explain why you deserve NAAA's Agricultural Aviation Scholarship (focus on why you want to pursue a career in agricultural aviation):

_____

_____

_____

APPLICANT'S SIGNATURE _____ **Date:**_____

NAAA/BASF AGRICULTURAL AVIATION SCHOLARSHIP APPLICATION

PART 2
SPONSOR (NAAA OPERATOR MEMBER):

Sponsor Name:_____

Company:_____

Address:_____

City, State, Zip: _____

Phone:_____ E-mail_____

Relationship to employee (choose as many as appropriate):

___ Family Member

___ Employee (current or past)

___ Other, please explain: _____

If not a family member, how long have you known the applicant:_____

NAAA OPERATOR/SPONSOR'S SIGNATURE _____

Date:_____

Please attach a letter of recommendation for the attendee. Please comment on the applicant's agricultural or flying background as well as general character, focusing on why you believe the applicant will become a good ag pilot and what the applicant has to do to further his or her training and development.

All applications must be received by **August 31** to be eligible for scholarship funds available for the following calendar year (January–December).

Student Project Highlights Ag Aviation Industry

Students Regan Zanardi and Kyle Grotelueschen, sixth graders at Christ Lutheran School near Columbus, Neb., approached National History Day with a special project. They focused on crop dusting, a fitting choice considering "Innovation in History" was the theme for National History Day 2010.

Sixth graders Regan Zanardi (photographed) and Kyle Grotelueschen's crop dusting exhibit took fourth place honors in an "Innovation in History" competition in March.

To prepare for their exhibit, Regan and Kyle interviewed two ag pilots. The students contacted NAAA/ Nebraska Aviation Trades Association Members Brian Wilcox, of Wilcox Aerial Applications Inc. in Tilden, Neb., and Craig Bair, of Ag Flight in York, Neb. They learned from the pilots' experiences, how their operations worked, what types of aerial applications the pilots make and collected photos from them. Both pilots said they thoroughly enjoyed the students' interest and curiosity to learn about agricultural aviation.

During their interviews, the students researched the advent of crop dusting, how the aircraft were modified after World War II for aerial applications, advances in chemical safety, GPS guidance systems, turbine engines, and new crop production techniques using aircraft to aerially apply rice seed in Arkansas. As a result, Regan and Kyle created an exhibit that was chosen for display in the district competition at Dana College in Blair, Neb., on March 6. Through their exhibit, the students found themselves presenting how the aerial application industry is a great innovation for agriculture. Their exhibit received fourth place in the Junior Group Exhibit Forum.

Regan is the daughter of Darren & Becki Zanardi, owners of Liberty Aviation, which specializes in aerial application aircraft maintenance, inspection and repair at Norfolk, Neb. Kyle is the son of Bryce and Tammy Grotelueschen, who farm and raise cattle at their operation near Leigh, Neb. ■

LEADERSHIP AT ITS BEST! *Neither snow, sleet nor flight delays across the country could prevent 10 aerial applicators from completing the 2009–2010 NAAA/Syngenta Leadership Training Program (LTP) in February. After the Washington, D.C., area experienced record snowfall, 34 NAAA directors and 10 LTP participants traveled from near and far to Arlington, Va., to attend NAAA's Spring Board Meeting and the second half of the Leadership Training Program. Pictured from left to right: Leadership Training Program facilitator Steve Powell; Will Farwell, Helicopter Applicators Inc., Benton, Pa.; Doug Johnson, Mid State Aviation Inc., Cozad, Neb.; Bruce Downs, Downs Farm Inc., Lindsay, Mont.; Paul Artman III, Artman Aviation, Inverness, Miss.; David Songer, Swing Wing Inc., Veedersburg, Ind.; Billy Whitfield, Tim Whitfield Aviation Inc., Fairfield, N.C.; Paul Soulek, Agri-Air Inc., Spearfish, S.D.; Joe Varjassy, Prairie Aerial Applicators Ltd., Riceton, Saskatchewan, Canada; Jason Wooten, B & W Aerial Spray Inc., Dimmitt, Texas; Sam Styron, Styron Aerial Application, Harrisonville, Mo.; and Syngenta's Neil Strong. Syngenta Crop Protection (née Zeneca) has generously sponsored NAAA's Leadership Training Program since its inception in 1995.*

NTSB Accident Report

Date	City	State	Aircraft Type	N #	Injury	Description of Accident
01/01/10	Tipton	CA	UH-12E	440NR	Minor	Hit ground—Leg slipped off of collective while adjusting visor
01/22/10	Shafter	CA	47G-4A	28938	Minor	Experienced yaw after hearing pop
02/02/10	Los Banos	CA	UH-12E	36MV	None	Throttle lever separated from collective
02/02/10	Escalon	CA	OH-58	9286U	Serious	Unknown cause—vibration felt, gen light illuminated, crashed
02/18/10	Colfax	WA	G-164B	6774Q	None	Partial power loss—hit terrain
02/23/10	Byron	CA	G-164	8494K	None	Power loss—forced landing in muddy field, flipped over

CLASSIFIEDS

Welcome to New Members

As of March 18, 2010

AFFILIATED ALLIED
Joseph Bays
Thrush Aircraft Inc.
Albany, GA

Mark Plummer
Allianz
Eden Prairie, MN

Frank Kelley
Allied Ag Cat Productions Inc.
Walnut Ridge, AR

AL-AIRFRAME #1
Steve Bruss
Wings Insurance
Eden Prairie, MN

AL-INSURANCE #1
Arch Hoxton
Hoxton Agency, The
Sheperdstown, WV

Barbara Malkowski
Evolution Insurance Brokers
Chicago, IL

AL-SUPPORT #1
Paul Collins
Collins Aircraft Dynamics Inc.
Alamo, TX

ASSOCIATE
Gregory Arnold
Forkland Springs Farm LLC
Tuscaloosa, AL

Torben Christensen
Stockbridge, GA

Pollyanne McKillop
Keppoch Consulting
Brighton, MI

Graham Smith
Allianz
Engelwood, CO

Raymond White
McCool Air Service
McCool Jct., NE

INTERNATIONAL
Attila Biro
Farnair Hungary
International

OPERATOR
Dean Davis
Farm Air Corporation
Minturn, AR

David Faust
Hawkeye Spraying Service Inc.
Wellington, KS

Jackie Fussell
Fussell Spraying Service
Broxton, GA

Dave Gossler
A.S.A.P. Flying Service Inc.
Hermiston, OR

Douglas Jackson
Benson Air Ag Inc.
Benson, MN

Jess Law II
Wateroak Aviation LLC
Texarkana, AR

Jonathan Leedahl
Strategic Air LLC
Leonard, ND

Ryan Lihs
Redline Aviation Inc.
Sioux City, IA

Phillip Morris
Sunnyside Aero
Schlater, MS

Bart Roye
Beta Ag Inc.
Ralls, TX

Daniel Tonner
Hoppe Airspray LLC
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PILOT
David Anderson
Kin-Co Ag Aviation Inc.
Paragould, AR

Justin Anderson
Low Level Aviation
Sublette, KS

Randy Brewer
Lanier Flying Service
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Tony Brown Jr.
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Ryan Cryder
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Morris, IL

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Dyer The Flyer Inc.
Marshall, MO

Adrian Gafford
San Antonio, TX

Mark Haberer
Haberer Ag Service
Elbow Lake, MN

Brad Hammond
Ozark, AL

Chad Hendricks
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Levi Johnson
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William Nessler
Dakota Air Spray
Huron, SD

Paul Sankey
Colusa, CA

Dustin Smith
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John Thompson
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Stephen Willis
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NAAA Membership Application

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2010 NAAA Membership Application

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

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

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

$450	___ Operator
	___ $10 each aircraft over 3
$170	___ Affiliated Operator
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$450	___ Allied (1–10 employees)
$680	___ Allied (11–50 employees)
$850	___ Allied (51–100 employees)
$1,000	___ Allied (101–500 employees)
$1,700	___ Allied (500+ employees)
$170	___ Affiliated Allied
$85	___ Associate
$225	___ International
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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.

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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.

With Claims, Time is of the Essence

By Steve Knowle
NAAA Insurance Committee

All of the property and casualty insurance policies that have made their way across my desk have had a provision, or condition, requiring the insured to give prompt notice to the company in the event of an occurrence or loss. It is customary for insurance people to refer to a liability claim as an occurrence, and a physical damage (hull) claim as a loss.

The exact policy wordings vary from policy to policy, but in a nutshell they say:

> *When a loss occurs the insured shall protect the aircraft from further damage, whether or not the loss is covered by the policy, and give notice as soon as practicable to the company or your agent, and also, in the event of theft, to the police. Further loss to the aircraft due to the insured's failure to protect it may not be covered by the policy.*
>
> *When an occurrence (liability) takes place written notice shall be given by or on behalf of the insured to the company as soon as practicable. Such notice shall contain time, place and circumstances of the occurrence and the names and addresses of the injured and of available witnesses.*
>
> *If a claim is made or suit is brought against the insured, the insured shall immediately forward to the company every demand, notice, summons or other process received by him or his representative.*

It should be pointed out that in most cases failure to give prompt notice could create a coverage issue and perhaps negate some or all of the insurance. Timely notice is necessary for the insurer to hire experts to document alleged chemical damage. A delay could allow symptoms that exonerate an applicator to disappear, crippling the ability of an insurer to successfully defend your own interest.

Rest assured, the aviation insurance companies in this market do not like to have coverage issues. There are only a dozen or so aviation insurers and they don't want the reputation of denying claims. Please give prompt notice of all losses and potential claims.

Ag operators might be tempted not to turn in a claim or to be slow in reporting a drift claim. The damages might be below their deductible, they rationalize. Even if the damages exceed the deductible, they still may pay out of pocket to avoid turning in a claim. Don't do it. Notify your agent promptly of any and all potential claims or aircraft damage. If you later settle with the claimant and advise the company to close its file with no payment, your premium will not go up. If the damage to your aircraft turns out to be minor with no hidden damage and you elect to pay for it yourself, the company will close its file without penalty.

You pay a premium for your financial protection and defense, and the claims personnel realize this duty. After the claims adjuster receives the notice of loss he or she will contact you and you can discuss the best course of action. If it turns out there is "no claim," the claim file can be closed with no payment and no blemish on your record.

It is imperative, however, that the insurer be notified as soon as practicable. Insurers are required by law to set aside funds (reserves) for all losses and occurrences. In addition, they must have the opportunity to investigate if they so choose. Do not create a coverage issue by late notification. ■

Ag operators might be tempted not to turn in a claim or to be slow in reporting a drift claim. Don't do it. Notify your agent promptly of any and all potential claims or aircraft damage. If you later advise the company to close its file with no payment, your premium will not go up.

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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