March 9, 2023

# NAAA eNewsletter

## NAAA Targets Ag Retailers, Farmers with Spring '23 Ad Buys in National Ag Publications

NAAA's ad campaign promoting the benefits of aerial application to farmers and ag retailers is back and in full swing for the 2023 season. A March 6 ad in AgWeb AM kicked off a nine-week email advertising run in one of Farm Journal Media's largest newsletters. On the print side, NAAA is running ads in *The Scoop* (formerly known as *AgPro*) and *Top Producer* magazine.

**AgWeb AM reaches 140,000 mostly grower subscribers.**

NAAA's digital ads will continue to run in AgWeb AM's Monday editions for eight more weeks, concluding with AgWeb AM's May 1 issue. AgWeb AM provides ag news, market and weather information each morning to an audience of 140,000 mostly grower subscribers.

The half-page ad in *The Scoop's* March 2023 issue will be followed by a half-page ad in *Top Producer's* March/April 2023 issue. *The Scoop* delivers business solutions to 20,000 farmer advisers, including agricultural retailers/dealers, independent crop consultants, custom applicators, professional farm managers, extension services and fertilizer, pesticide, seed and equipment manufacturers.

*Top Producer* reaches large farmers. Readers must have 1,000-plus acres of corn or soybeans or 1,000-plus acres of wheat, cotton or other grains to qualify for a subscription. The 105,000 farm executives who read *Top Producer* purchase nearly 80% of all farm inputs.

As always, NAAA's print and email ads feature the tagline "Aerial Application: Above All Other Forms of Crop Care" and promote how aerial application is by far the fastest, most versatile and economical way to aid farmers in producing greater crop yields. Additionally, this year's campaign includes messaging that alludes to the industry's 100th anniversary. A secondary tagline in the new digital ads that alternates with the primary tagline declares: "Aerial Application: Heightened Crop Care Since 1921." Centennial-oriented messaging was also worked into the new print ads.

The calls to action direct readers to find an aerial applicator near them using NAAA's **"Find an Aerial Applicator" database** of NAAA member operators.

NAAA has been promoting aerial application services through national ads in agricultural trade media for six years, dating back to 2017. Last year NAAA advertised in the AgWebAM, the CropLife News newsletter and *The Scoop* again. In earlier years, the "Above All Other Forms of Crop Care" ad campaign has appeared in *The Scoop* (2021), *AgPro* (2020), *CropLife* magazine (2017 and '19) and *Farm Journal* magazine (2018). NAAA has been advertising in AgWeb AM's weekday morning e-newsletter since 2018.

## Update Your 'Find an Aerial Applicator' Listing

This ad campaign, along with the "Find an Aerial Applicator" database, is a service NAAA provides to operator members to help promote their businesses.

NAAA's search tool can be found at **AgAviation.org/findapplicator** or on any page of NAAA's website by clicking on the **"Find Aerial Applicator"** link in the upper right-hand corner.

The "Find an Aerial Applicator" lookup tool gives NAAA Operator, Affiliated Operator and Lifetime Operator members the option of promoting their services to farmers and other potential customers by listing their company in NAAA's narrowly tailored public database. The database only provides enough information to give farmers, municipalities and others who may need the services of an aerial applicator a mechanism to locate and contact the NAAA operators nearest to them. Search results return the name of the company, the business number on file, the operator's city and state, and the aerial application operation's website, if there is one.

To ensure your information is up to date, you can log in to **AgAviation.org** and, once logged in, you can update your listing with a logo, edit your listing or opt-out of the database. Operator, Affiliated Operator and Lifetime Operator members are free to opt-out or opt back in at any time. If you need assistance with updating your information, please contact the NAAA office at (202) 546-5722 or **information@agaviation.org**.

## NAAA Comments to EPA on Aerial Application Issues in Several Pesticide Registration Review Proposed Decisions

Yesterday, NAAA submitted comments to the EPA on four proposed interim decisions (PID) for DCNA, etofenprox, norflurazon, and thiophanate-methyl and carbendazim. A PID is the second step in the pesticide registration review process, preceded by risk assessments and followed by the final interim decision and an endangered species review. These four PIDs incorporate new mitigation strategies from

the EPA's recent **endangered species workplan update** that are intended to reduce the time and effort required during the endangered species review process.

The PIDs for norflurazon and thiophanate-methyl and carbendazim retained aerial application on the label and included drift mitigation language acceptable to the aerial application industry. It allows aerial applications in winds up to 15 mph, requiring a boom shortened to 65% of wingspan or 75% of rotor diameter for helicopters as well as and an increase from ½ to ¾ swath displacement when wind speeds are above 10 mph. A medium or larger droplet spectrum is required and applications during inversions are prohibited. These proposed drift mitigations have been seen on many PIDs over the last several years. NAAA commented to the EPA that we agreed with the proposed drift mitigations.

Unfortunately, these same two PIDs also included a proposal to require non-wind-directional buffer zones adjacent to aquatic habitats and conservation areas when making aerial applications. NAAA opposed this proposal, and instead suggested the buffer zones be based on wind direction, referencing USDA's support of wind directional buffers and showing USDA research supporting these conditional buffers. NAAA reminded the EPA that they themselves recommended the use of wind-directional buffer zones to protect endangered species in their recent endangered species protection workplan update.

The PID for DCNA proposed banning aerial applications because of risks of concern from drift to bystanders and the environment. The EPA further justified the ban by stating that aerial applications are not common. NAAA opposed the ban, stating the risks of concern from drift are based on the use of the Tier 1 model in AgDRIFT which uses outdated and faulty assumptions to inaccurately model the drift from aerial applications. NAAA also reminded the EPA that while aerial application might not be a common method to apply DCNA now, the continued threat of pesticide resistance and the outbreak of new pests could change the demand for aerial applications.

The PID for etofenprox had a proposed drift mitigation of minimum height restrictions of 100 feet for fixed-wing aircraft and 75 feet for helicopters when making ultra-low volume aerial applications for wide-area mosquito control, which NAAA did not oppose.

NAAA will be monitoring the pesticide registration review process and commenting in favor of aerial applications for all products that can be applied by ag aircraft. Despite some of the proposals in these recent PIDs, recent meetings between NAAA and the EPA have proven that we are making substantial progress toward getting the EPA to use the more accurate Tier 3 model in AgDRIFT and make all buffer zones wind-directional.

## NAAA Comments to FAA Requesting Additional Safety Requirements Protecting Manned Ag Aircraft for Perimeter Patrol Drone

On March 3, NAAA submitted comments to the FAA on the proposed airworthiness criteria for the **Asylon DroneSentry Model ASY02C+** unmanned aircraft (UA). This DroneSentry is a 19-pound multi-rotor UA measuring 49 x 49 x 12 inches marketed for beyond visual line of sight (BVLOS) perimeter security patrols. Notably, up to five of these UAs could be operated by a single remote pilot. This use has the potential to put the UA in areas manned aircraft are operating in, with the added risk associated with a single pilot monitoring the combined airspace of up to five UAs simultaneously.

NAAA's comments focused on ensuring a safe low-altitude airspace, and included an assertion that a commercial pilot's license should be required to operate such UA. NAAA maintains that the airworthiness requirements for commercially utilized UA should be similar to those of manned aircraft. Regarding collision avoidance specifically, NAAA stressed that the UA must be able to detect a manned aircraft and that manned aircraft pilots be able to see or detect the UA. Further, any collision avoidance equipment working toward approval should be operationally tested, specifically around manned agricultural aircraft.

The FAA's proposed airworthiness criteria can be viewed **here**. NAAA's comments may be viewed **here**.

NAAA continues to promote pilot safety as the primary objective as UA are integrated with the national airspace.

## 2023 Support Scholarship Contest Entries Due Sept. 15

The **2023 Support Scholarship Contest** deadline is Sept. 15. The NAAA Support Committee will award a $2,000 scholarship as top prize, and Covington Aircraft Engines has generously agreed to sponsor a $1,000 scholarship.

The theme for this year's contest is **"What role does ag aviation play in producing a local commodity?"**
The 2023 Support Scholarship Contest is open to any individual sponsored by an NAAA member. The scholarship is not restricted to individuals pursuing a "flying career" and can be used toward any educational pursuit beyond high school (at any age).

Any educational pursuit beyond high school (at any age) is eligible. Entrants must be a senior in high school or registered in higher education by the fall semester of 2023. The competition is open to anyone sponsored by an NAAA member. Previous winners are not eligible to compete. Submissions must be an essay of at least 1,500 words or a 5-minute multimedia presentation. Submissions are now entered **online**. More information about eligibility requirements, contest guidelines and sample essays from past scholarship recipients is available **here**.

## Illinois Wind Farm Required to Compensate Nonparticipating Growers for Increased Aerial Application Costs if Neighbor Hosts Wind Turbine

An aviation consultant who was an agricultural aviator for 14 years successfully got his county to require a wind farm company to compensate growers impacted by wind turbines in neighboring fields if aerial application services are compromised. Jerry Lay with Jerry Lay Aviation LLC was on the Woodford County, Illinois, zoning board when Panther Grove Wind LLC petitioned to locate and operate a wind farm in the county in late 2020. Being a current pilot, instructor and former ag aviator, Jerry understood the impact wind farms have on the ability of growers to utilize aerial application to treat their crops.

The presence of a wind farm is a serious safety concern for ag aviation. Aerial applicators frequently turn down job requests or charge a higher price when making applications within or adjacent to a wind farm. Even if a grower does not have a wind turbine in the field he wants sprayed by air, a wind turbine in a neighboring field can still impact his application because the pilot has to navigate around the wind turbine while turning. This can increase the cost of aerial application for a grower who did not choose to have a turbine on their property.

With that in mind, during the process of approving the wind farm for Woodford County, Mr. Lay was successful in getting the following special consideration added to the final ordinance approving the wind farm:

> Panther Grove Wind Energy, LLC or any subsequent owner shall reimburse non-participating farmers/land owners for the difference between the standard aerial application fee for that area charged by the aerial applicator, and any increased application fee or for any additional charge incurred due to the proximity of the wind turbines that are within the navigable aerial application airspace of any field(s) being sprayed belonging to the non-participant.

Panther Creek had already agreed to compensate any grower who decided to have a wind turbine on their land for the increase in aerial application costs and did not object to this additional requirement.

This is an example of the importance of being involved at the local level—and in this case at the local zoning authority—to represent the significance of aerial applications and how wind farms can negatively impact aerial applicators' safety and ability to provide timely and effective pest control. It may be useful information for aerial applicators across the country as they deal with ever-increasing proposals to build wind farms.

## Dig Deeper

The complete approved recommendations and ordinance for the Panther Grove Wind Farm can be found **here**. The transcripts of the meeting where the special conditions were discussed can be read **here**; see pg. 900 for the part on the special conditions. There is also an interesting discussion starting on pg. 877 about the impact the wind farm will have on local airstrips and how wind turbines should be illuminated.

## Burt Rutan, Aerospace Legend, to Speak at 2023 Ag Aviation Expo Kickoff Breakfast

Burt Rutan, Aerospace entrepreneur and Virgin Galactic spacecraft designer, will speak at the 2023 Ag Aviation Expo Kickoff Breakfast on Monday, Dec. 4, in Palm Springs, California. Burt Rutan was described by *Newsweek* as "the man responsible for more innovations in modern aviation than any living engineer." A bold visionary with a passion for the advancement of technology, he founded the aerospace research firm Scaled Composites and was named one of "The World's 100 Most Influential People" by *TIME*.

In business, Rutan believes that the best ideas come from the collaborative efforts of small, closely-knit project teams and an environment not limited by adversity to risk. He inspires audiences with his vision on creativity, innovation, and managers' tasks to motivate a creative team.

Rutan designed the legendary Voyager, the first aircraft to circle the world nonstop without refueling. He also created SpaceShipOne, the world's first privately funded spacecraft, which won the $10 million Ansari X Prize, offered in an effort to spur the development of affordable space tourism.

In a joint venture with Virgin's Richard Branson, Rutan formed The Spaceship Company to manufacture and market spaceships for the new commercial space-flight industry.

Rutan is currently working on two projects: the Stratolaunch—part airplane, part spaceship—with Microsoft co-founder Paul Allen, and the **SkiGull**, an amphibious aircraft that runs on the same gas we use for cars and boats.

In 2004, The Spaceship Company launched Virgin Galactic, the world's first commercial spaceline. So far, Virgin Galactic has contracted five SpaceShipTwo tourist spacecrafts and two White Knight Two motherships to the paying public, along with suborbital to provide sub-orbital spaceflight space science missions and orbital launches of small satellites.

Rutan was profiled by *60 Minutes* and featured on the covers of both *LIFE* and *TIME*. Author Dan Linehan chronicled Rutan's groundbreaking ideas and designs up to present in his 2011 book, *Burt Rutan's Race To Space: The Magician of Mojave and His Flying Innovations*. Rutan was also the subject of Daniel Alef's Titans of Fortune e-book biography, ***Burt Rutan: Aeronautical and Space Legend***.

The hotel room block for the NAAA Ag Aviation Expo will open in late March.

## NAAA Continues National Effort to Protect State and Federal Primacy of Regulating Pesticides, Countering Federal Legislative Efforts to Allow County and Municipal Entities Jurisdiction

U.S. Sen. Cory Booker (D-N.J.), a member of the Senate Committee on Agriculture, Nutrition, and Forestry, reintroduced legislation that would allow any political subdivision of a state—county, municipal or other government entity—to regulate pesticides, regardless of possessing any extensive scientific training to do so. Booker's legislation would also prohibit the use of pesticides not allowed for use in the European Union or Canada, relinquishing to a foreign entity the U.S. government's autonomy to regulate pesticides.

This year, we have already seen attempts to ban aerial applications in Virginia lands west of the Blue Ridge Mountains and a past referendum passed in an Oregon county banning aerial use in forestry that was later overturned in the courts.

Not sitting idly, NAAA is pushing Congress to amend the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) to codify that pesticide regulation be the sole jurisdiction of the states and federal government where rules are developed with a scientific emphasis. Otherwise, it could lead to an impossible patchwork for pesticide users to navigate of possibly hundreds and hundreds of different entities regulating pesticides.

NAAA is part of a larger coalition pushing FIFRA preemption legislation to be included in the 2023 Farm Bill. It joined onto a letter to House and Senate Ag Committee leaders urging federal preemption language be part of the new farm bill. The letter signed by NAAA, hundreds of pesticide user groups nationwide, and most of the state and regional ag aviation associations is available **here**.

## EPA Reconsiders Application Exclusion Zones: Sights Set on Burdensome 2015 WPS Requirements

On Feb. 15, the EPA released a draft proposed rule that would address the **Application Exclusion Zone (AEZ) requirements** defined in the 2015 Worker Protection Standard (WPS). Notably, this would uphold the current requirement to suspend applications when any persons enter the AEZ (a 100-foot radius for aerial applications), even if they are outside the property being treated.

At the end of 2020, the EPA revised the AEZ from the original requirements laid out in the 2015 WPS. NAAA and other agricultural groups had advocated for these revisions, which, among other things, removed AEZ applicability outside the boundary of the property being treated. Before these revisions could take effect, the EPA was sued in two separate cases over them, resulting in a preliminary injunction from the U.S. District Court for the Southern District of New York, which stayed the effective date of the 2020 rule. The injunction has effectively resulted in the 2015 AEZ requirements continuing to be the law of the land.

The EPA's 2023 draft proposed rule will largely seek to unwind the favorable 2020 revisions and revert to the 2015 WPS AEZ requirements. However, some of the revisions will be incorporated. **View Summary Comparison Table.**

NAAA is closely monitoring the situation and will provide comments to the EPA once the proposed rule is published. These will build on **NAAA's previous comments on the 2020 revisions** and appeal to the EPA to recognize the practical challenges around complying with AEZs extending outside the property being treated. Further, NAAA will continue to advocate for making the AEZ wind directional. The same logic and facts (drift moves downwind) that apply to buffer zones should also apply to defining the AEZ.

Look for a grassroots request from NAAA to also submit your own comments to the EPA on this important issue.

## Airworthiness Directive Affecting Continental Engines

An airworthiness directive (AD) that affects crankshaft assemblies on Continental Engines has been issued as a final rule. **AD-2023-00265-E** went into effect Feb. 23. There are differences in assemblies depending on serial number and installation date, so check the AD and service bulletin.

Due to improper installation of the counterweight retaining rings during manufacture, loosening of a counterweight retaining ring may result in the loss of retention of the counterweight. If not addressed, the condition could result in catastrophic engine damage and possible engine seizure. An inspection of the crankshaft is required on affected engines before further flight, or a ferry permit must be obtained to fly the aircraft to a place where the inspection can be performed.

The complete AD may be viewed **here**.

## Differences Between This AD and Related Continental Service Information

Continental's service information (Continental Mandatory Service Bulletin MSB23–01, Revision A) specifies compliance for engines with less than 200 operating hours, while **this AD requires compliance for all affected engines, regardless of the operating hours.** The FAA has determined that this unsafe condition, of improperly installed counterweight retaining rings, is likely to exist on affected engines. While the manufacturer's service information excludes engines accumulating 200 or more operating hours, the FAA has not, as of yet, been provided with adequate data to support that exclusion. In the event the FAA receives data to support the exclusion of engines with more than 200 operating hours or makes other changes to this AD, the FAA may consider further rulemaking.

Although the AD is currently in effect, the FAA is accepting comments until April 10. To comment, see the above link. The FAA may change

this AD as a result of comments received.

## FAA's GA Survey Data Collection for 2022 Now Underway

The FAA's annual General Aviation and Part 135 Activity Survey (GA Survey) is officially underway. The survey is collecting aviation activity for the calendar year 2022. The GA Survey is the only source of information available that provides reliable data on the GA fleet, including the number of aircraft and hours flown. The data is used by the FAA, other government agencies and the aviation industry for a variety of things, including assessing safety and understanding the economic impact of aviation.

The GA Survey is especially critical to the agricultural aviation industry. NAAA uses the results of the GA Survey, in conjunction with NTSB accident numbers, to calculate an overall accident rate and a fatal accident rate for Part 137 operations. This allows NAAA to track and document the safety of the agricultural aviation industry and provide evidence to the FAA and NTSB that PAASS and other safety programs are working to reduce Part 137 accidents. Having accurate accident rates is especially helpful in the event additional regulations may be proposed.

Participation in the GA Survey is voluntary, but the agricultural aviation industry needs your input. **If you are selected to participate in the GA Survey, you will receive an email or postcard invitation asking you to complete the survey online.** For those who chose not to complete the survey online, a mailed survey is sent, which includes a postage-paid return envelope. The information is confidential and will only be used for statistical purposes, and will not be published or released in any form that would reveal an individual participant. It only takes 10 to 15 minutes to complete the survey.

If you are contacted, please respond to the survey even if you did not fly your aircraft during 2022, sold it, or if the aircraft was damaged. If you own three or more aircraft, there is an abbreviated survey form you can use instead of needing to complete a survey for each aircraft. About 30% of the total number of GA aircraft are surveyed each year, so you may be asked to participate two or more years in a row. If you have questions, please contact Tetra Tech, the independent research firm that conducts the GA Survey for the FAA, toll-free at 1-800-826-1797 or by email at **infoaviationsurvey@tetratech.com**.

Results from prior surveys can be found **here**.

## Pratt & Whitney Canada Celebrates 1 Billion Flying Hours and 60 Years of PT6 Innovation

Congratulations to Pratt & Whitney Canada (P&WC) for reaching 1 billion flying hours since the company was founded nearly 100 years ago, in 1928.

P&WC engines power missions across a diverse portfolio, including business aviation, general aviation, helicopter aviation and, of course, agricultural aviation. Throughout the life of the company, more than 110,000 engines have been produced, with over 66,000 currently in service powering P&WC's 16,000-plus customers.

Pratt & Whitney Canada—a business unit of Pratt & Whitney—has been powering the aerial application industry since the mid-1970s with its PT6A turbine engine line. To date, approximately 4,000 PT6A engines have been produced to power ag aircraft.

"Aviation has the power to change the world. Our engines power aircraft that benefit millions of people every day," said Maria Della Posta, Pratt & Whitney Canada's president. "Every second, a P&WC-powered aircraft takes off or lands somewhere on the planet, whether they're driving commerce, reuniting families or powering humanitarian missions, emergency medical services or search and rescue missions. Achieving 1 billion flying hours is made possible by the dedicated team at Pratt & Whitney Canada along with our customers, suppliers and the extended P&WC community."

## 60th Anniversary of the PT6 Engine

In another milestone for Pratt & Whitney Canada, the PT6 engine family is celebrating 60 years of excellence and innovation this year. With more than 64,000 PT6 engines produced since its introduction in 1963, it powers over 155 different aviation applications and has reached 500 million flying hours.

"Today's PT6 is up to four times more powerful, has a 50% better power-to-weight ratio and up to 20% better specific fuel consumption compared to the original engine," Della Posta said. "Each new model is developed and designed with a specific mission, platform and customer in mind, while pursuing a reduced environmental footprint."

On behalf of its members and the industry, NAAA commends Pratt & Whitney Canada for achieving yet another impressive milestone and keeping aerial applicators turning mission after mission, again and again.

## NAAA Completes a Capital Marathon Week With Leadership Training, Government Advocacy and Board Meetings

For five full days, from Feb. 14-18, NAAA exerted great influence in our nation's capital region, whether it was providing professional

training to the next generation of leaders of the aerial application industry, advocating key ag aviation policy positions to federal officials, or outlining substantive policies for the national association to strengthen the industry moving forward.

## Leadership Training Program

***NAAA leadership program participants get ready to hit the halls of Congress with NAAA President Craig Craft and CEO Andrew Moore.***

The 26th class of the Leadership Training Program began Tuesday, Feb. 14, where 11 individuals nominated by state and regional ag aviation trade associations underwent professional training in understanding personalities, policy advocacy, and media and communications training for 3 ½ days. The group, along with NAAA board, committee and staff members, spent multiple days advocating ag aviation policy issues to federal policy and lawmakers, including meetings with the EPA advocating for aerial use language on pesticide labels without unnecessary and burdensome label language; and meetings with multiple U.S. Senators and U.S. Representatives on subjects ranging from funding federal aerial application research, eliminating unnecessary and duplicative water permits for applying pesticides under the Clean Water Act when FIFRA already requires pesticides' safety to water, tower marking and logging requirements, and drone safety requirements.

***NAAA CEO Andrew Moore, NAAA's South Dakota board representative, Craig Bair, and NAAREF President Perry Hofer of Doland, South Dakota, met with Sen. John Thune (R-S.D.).***

***NAAA's Arkansas board representative, Matt Woolard, arranged a meeting with Sen. John Boozman (R-Ark.) in Washington last Thursday. Pictured from L-R: NAAA leadership training participants Travis McPherson (North Dakota), Justin Staas (California) and Bart Alexander (Louisiana), Woolard, Sen. Boozman, leadership training participant Brant Bottoms (Arkansas) and NAAA's Moore. Sen. Boozman is the Ranking Member of the Senate Agriculture, Nutrition and Forestry Committee.***

## AgAv PAC Breakfast

***Sen. Deb Fischer (R-Neb.) spoke at NAAA's AgAv PAC breakfast.***

NAAA hosted its annual fundraiser for its political action committee—AgAv PAC—during its capital area board meeting and was joined at the event by U.S. Sen. Deb Fischer (R-Neb.). Fischer spoke about the upcoming farm bill, which must be authorized this Congress and discussed a particular piece for the bill she is authoring that would provide incentives for farmers that utilize precision agricultural technologies.

## EPA

***Ed Messina, the director of the EPA's Office of Pesticide Programs, updated NAAA's Board on pesticide policy issues on Feb. 17.***

Another key government official addressing the Board was Ed Messina, the director of the EPA's Office of Pesticide Programs (OPP), which has jurisdiction over approving pesticides on the market and how they may be used. Messina gave a great presentation summarizing the different divisions at OPP and how some weigh the risks and others the benefits of pesticides to formulate their registration and labeling decisions. He also elaborated on the challenges the EPA faces presently, particularly dealing with the Endangered Species Act (ESA) and Section 7(a)(2) of the statute requiring that federal agencies must ensure that the "actions" they authorize will not result in jeopardy or adversely modify designated critical habitat for species listed as endangered or threatened by the U.S. Fish and Wildlife Service (FWS) and/or the National Marine Fisheries Service (NMFS) (jointly the Services). OPP's "actions" that may jeopardize species are authorizing the sale, distribution and use of pesticides according to the product labeling. The EPA is consistently sued by environmental activists over the ESA. Messina provided several quotes from judges in these cases, such as one from the *Center for Food Safety v. Regan*, Dec. 2022, 9th Circuit where the judge states, "It's déjà vu all over again. EPA comes before this court once more because of its failure to abide by the law…. EPA cannot flout the will of Congress—and of the people—just because it thinks it is too busy or understaffed." The EPA is currently saturated with pesticide decisions that must be reviewed under the ESA.

Messina also stated that OPP is currently evaluating NAAA's input recommendations for Tier 3 analysis under the AgDRIFT atmospheric model. Tier 3 analysis means further refinements to off-site drift analysis to take into account more specific and refined aerial application inputs, which could allow greater use of specific pesticides as they go through individual risk assessments because of potentially lower modeling of off-site drift.

Messina also stated that OPP is working with several groups to better understand the use of UAVs for pesticide application, such as the EPA PPDC Emerging Technology Working Group, of which NAAA staff are on the group. OPP is trying to better understand the process for updating risk assessment, labels, obtaining additional data, etc. when it comes to UAVs.

## CEO Report

Andrew Moore, NAAA CEO, provided an association and industry overview, starting with an economic overview stating that USDA forecasts food price inflation in 2023 to be 7% compared to 2022's 9.9%. Farm Income in 2023 is forecast to drop $25.9 billion (15.9%) to $136.9 billion from 2022. The drop is partially due to U.S. ag exports, which are expected to decline by $2.5 billion in 2023 from 2022 due to the high value of the dollar versus other global currencies and a current anemic U.S. trade policy. The current administration has been late in getting key trade advisors in position, and China is tapping Brazilian supplies of corn with Ukrainian corn production down due to the conflict with Russia. The U.S. hasn't taken advantage of corn production losses in the Baltic.

Public policy issues were then discussed, starting with the farm bill, which expires this fall, if it is not extended or reauthorized. NAAA has been lobbying Congress to enact regulatory relief as part of the bill, such as codifying state and federal preemption of enforcing pesticide regulations under FIFRA to prevent a hodge-podge of different county and municipal rules; also pushing a law to exempt pesticide applicators from having to obtain water permits under the Clean Water Act (CWA) since pesticides are already tested for water safety and the Biden administration's new definition of a Water of the U.S. under the CWA would include ephemeral waters that may not have waters running through them for months if not years. NAAA will also be advocating for federally funded aerial application technology research as part of the farm bill. The fight will be tough to enact a farm bill, especially in the House of Representatives, as deficit hawks square off with food stamp constituencies, which consist of about 80-plus percent of farm bill spending. Federal debt has increased 50% since the last farm bill in 2018 to $32 trillion when $26.3 billion of ag spending was cut.

***From L-R, NAAA Precision Agriculture Committee Chairman Glenn Holloway Jr., Government Relations Committee Chairman Damon Reabe, President Craig Craft and Scott Bretthauer, NAAA's director of policy, education and safety, at a meeting with the EPA.***

Moore discussed pesticide issues, many of which were discussed by EPA OPP Director Messina. NAAA continues to work to reregister pesticides labeled for aerial use without unnecessary or burdensome label language. Since 2017, NAAA has submitted a total of 257 comments to the EPA to support such uses. Another concept brought to the EPA's attention during the time the Board was in town was a software concept named site-specific risk assessment. Inputted into the software would be the environmental conditions at the actual spray site (waterbody nearby, endangered species, etc.), then the application equipment used (nozzle, boom width, pressure, etc.). The output would be either additional protections needed for the applicator to implement to protect a sensitive area, or perhaps grant leeway to the applicator, such as allowing for the application to take place in wind speeds more than existing limitations.

Moore also discussed NAAA's efforts to continue to meet with major chemical manufacturers to register products aerially. Last year it met at UPL, BASF and Syngenta headquarters to meet with top-level officials. This spring it is working on meetings in the Midwest with Bayer and Corteva.

Moore touched on transportation policy issues such as NAAA Board member from Arkansas Matt Woolard's efforts along to get the Federal Motor Carrier Safety Administration to release a proposed regulation later this year allowing states to transport up to 1,000 gallons of Jet A without a CDL HazMat endorsement. Moore also brought up NAAA's comments to the EPA to not ban avgas leaded fuel until an alternative is readily available and affordable. He also stated that Congress must pass FAA reauthorization legislation this year, and NAAA will be urging Congress to expand the 2018 statute it worked on requiring both marking and logging of rural towers between 50 and 200 feet tall and 10 feet in diameter or less to apply to all types of towers meeting this description. NAAA will also be working to put in statute language requiring drones to always give right-of-way to manned aircraft.

Moore switched gear to communications. NAAA is proceeding again with its "Above All Forms of Crop Care" ads promoting the agricultural benefits of aerial application and providing the website link for farmers to find NAAA operator members that conduct such services. The ads will be published this spring in Farm Journal Media's AgWeb newsletter (circulation: 201,000 farmers nationwide), *The Scoop* magazine (circulation: 20,000 ag retailers and crop consultants nationwide) and *Top Producer* magazine (circulation: 100,000 large farmers nationwide).

Moore also discussed progress made by NAAA's Ad Hoc Communications Committee, which is studying ways to broaden NAAA's focus on external communications after the success of the public relations results of the 100th anniversary celebration. Discussions have been made with publisher Farm Journal to perhaps have ag aviation articles be more present in their widely circulated publications to agriculture. Conversations have also ensued with Marsayl Media about the possibility of providing programmatic marketing services on behalf of NAAA. Programmatic marketing takes data from a web user to program the best web advertisements that best represent that user's search/viewing behavior. NAAA has also worked with public relations agencies such as the Baering Group and Clyde Group to provide services to broaden the industry's reach to the larger media.

Accident data was then presented from the recently released 2021 FAA General Aviation Activity Survey. It showed a total of 924,037 ag hours flown that year, with 5.95 accidents per 100,000 hours flown. Those stats showed that our accident rate has continued to decrease since the PAASS Program hit the stage in 1999 by 26.34%. Total accidents in 2022 were 51, sadly, nine of which were fatal. Moore then announced that the Certified Professional Aerial Applicator Safety Steward (C-PAASS) program is now up and running and that those who are NAAA members and belong to a state/regional ag aviation association, along with having completed the past three years of PAASS and gone through an Operation S.A.F.E. clinic over the past two years may now complete their application and receive their 2023 C-PAASS certification at **https://education.agaviation.org/cpaass**. Craig Craft, the 2023 NAAA president, is the first person to receive the C-PAASS certification. In 2024 additional online training and testing material will be required to become C-PAASS certified.

***Scan here to get C-PAASS certified.***

The 2022 Knoxville, Tennessee Ag Aviation Expo was then discussed. It was a profitable show, netting $809,771 for the association, with 1,573 attendees. The 2023 show in Palm Springs, California, is coming together nicely. Aircraft will be flown to Palm Springs International Airport and towed to the convention center. The Kickoff Breakfast speaker will be Burt Rutan, described by *Newsweek* as "the man responsible for more innovations in modern aviation than any living engineer." He designed the legendary Voyager, the first aircraft to circle the world nonstop without refueling. He also created SpaceShipOne, the world's first privately funded spacecraft, which won the $10 million Ansari X Prize, offered in an effort to spur the development of affordable space tourism. The 2024 Ag Aviation Expo will be in Fort Worth, Texas, followed by Reno, Nevada, in 2025 and 2028 and Savannah, Georgia, in 2026.

Membership was then discussed. NAAA completed 2022 with a total of 1,826 members—88 more than in 2021 which includes 23 more operator members and 55 more pilot members, although still only 31% of the total number of aerial application operators and non-operator ag pilots in the U.S. As of the end of January, there were 1,129 NAAA members for 2023—423 operators and 323 pilots.

Moore concluded with optimistic forecasts for agricultural production, again citing global population figures of 8 billion humans presently on the planet with 9 billion souls expected by 2050, according to the United Nations. This and the trend of global average temperatures steadily increasing since 1980 to today has increased fungi and other pest pressures in ag and will likely result in more and more demand for pesticide applicators.

## Board Meeting

***President Craft presides over NAAA's board proceedings.***

After a busy day-and-a-half of meetings, President Craig Craft presided over the Feb. 18 afternoon NAAA board meeting. The following are business highlights and approved motions from the committees and Board:

**Joint Allied & Convention Meeting:** The 2022 Knoxville, Tennessee Ag Aviation Expo was a smashing success ranking second in total income received from an NAAA convention. Unfortunately, NAAA had to pay an attrition penalty to one of the hotels due to last-minute cancellations and not filling the room block. To avoid this in the future, NAAA is working with future convention hotels to have a three-week cancellation clause; if a room is canceled within a three-week window of the start of the convention, a one-room-night penalty will be levied and applied to NAAA's room block.

Palm Spring's convention this year will include Burt Rutan, the world-famous aeronautical engineer and designer of the Voyager and SpaceShipOne, as the Kickoff Breakfast speaker.

The Board approved a motion by the committee to negotiate contracts for a November 2027 Ag Aviation Expo in Oklahoma City, Oklahoma, based on the offer the city provided the association.

**Budget & Finance Committee Meeting:** Darrel Mertens, former Treasurer from Colorado, provided an excellent and comprehensive overview of the association's finances. The total assets for the association equal $5,448,822 and rose $29,638 from last year. As of Jan. 31, 2023, net income for NAAA is $633,561, $50,809 above the prior year.

Mertens also presented a proposed 2023-2024 Fiscal Year Budget. The budget includes underestimating revenues that may be seen from people wanting to be certified under C-PAASS. More convention revenues may also be seen from the convention and wires course, but they were not budgeted. C-PAASS has also seen increased insurance costs and software costs to install learning management software to provide online courses and testing to the tune of $47,000. The budget, ultimately enacted by the Board, has a projected deficit of $192,591.

**Communications:** Oklahoman Matt Regier, chair of the committee and of its ad hoc panel looking at augmenting external communication activities, reported on a presentation made by Marsayl Media's Graham Lavender on programmatic advertising. This is a system that makes it possible to purchase and place ads, including targeted advertising content, in less than a second on the internet based on the users viewing habits. It is a system the committee is looking at to benefit NAAA by getting the industry messaging out to the right audience.

The committee also discussed new publishing opportunities and techniques for the magazine, including partnering with *AgAir Update* to publish *Agricultural Aviation* magazine as part of an insert to *AgAir Update* or a freestanding publication. The committee also discussed Farm Journal publishing the NAAA magazine and possibly having consistent NAAA/aerial application articles in its ag retailer/crop consultant magazine, *The Scoop*, which has a 20,000-plus circulation.

To focus more on external communications, as a healthy majority of members and those in the industry were surveyed wanting last spring to positively promote the industry to the public as was done during the recently completed 100th anniversary celebration, the committee brought a motion to the Board to discontinue the summer issue of *Agricultural Aviation* magazine and bring the number of annual issues from four (4) a year to three (3) a year beginning in 2024. The Board approved the motion.

**Government Relations:** Chairman Damon Reabe of Wisconsin reported on the government relations issues reported above in the CEO report. He also made a vital point of urging all board members to complete any survey NAAA requests of them and to urge those in their states to do the same. Examples of such surveys include the **Raspet Flight Research Laboratory's request** for ag aircraft GPS data to counter drone users' claims that there is minimal activity at 500 feet or below; a similar survey on obstacle encounters recently released by the University of North Dakota; the NAAA Industry Surveys, etc. The data gathered by these surveys are imperative to NAAA's advocacy efforts on behalf of the aerial application industry.

**Insurance:** Chairman Rogge of Colorado reported that the association is looking at the possibility of offering group health insurance to members by researching the services provided by a company named **Decisely**. Decisely is a technology company partnering with health insurance plans nationwide to effectively create a healthcare.gov type site that may be available to members to choose a health care plan that works for their business or individual pilots if the operator chooses not to offer insurance. The first step to moving forward is to survey the membership and gauge the interest. NAAA would have to use Decisely's survey and there is a cost. NAAA is looking into this and will report on the cost and move forward if reasonable.

**Membership:** Louisianan Dwayne O'Brien, Vice President, presented the committee's report. One very interesting highlight that the committee worked on is the Charles Stokes Memorial Turbine Training Scholarship, a scholarship generously funded by Jim Mills of Turbines Inc. that will provide scholarship funds to a turbine training institution for a low-time ag pilot making the transition to a turbine engine ag aircraft. Applications will be available soon and are due at the end of August. Regarding the Ag Wings of Tomorrow Scholarship, BASF and Thrush have both committed to $10,000 for the 2023 scholarship.

**Museum:** Matt Woolard of Arkansas informed the Board that the Agricultural Aviation Museum and Hall of Fame in Jackson, Mississippi, is planning phase two renovations which will include a 30-seat theatre. The refurbished Snow S-2A is expected to be delivered in late spring to its final resting place in the museum, and the NAAA's 100th anniversary book, *Agriculture's Air Force: 100 Years of Aerial Application*, is now for sale in the museum's gift shop. NAAA is working with the Smithsonian to sell the book in its National Air and Space Museum gift shops. The committee discussed and agreed to explore creating a walkway at the museum to memorialize pilots lost to ag aviation accidents. The idea would be to list the names of everyone who has been killed in an ag aviation accident, going as far back as possible, by imprinting their names on pavers placed along an outdoor path at the museum that could be called "The Last Pass Path." The first step is to research and develop a list of fallen pilots, which Graham Lavender has begun to do. The committee is moving $2,500 from NAAA's Harold Miller Fund to help finance this project.

**Precision Agriculture:** The committee discussed Application Insight's forthcoming nozzle shield caps aimed at reducing small droplets, which is showing promise in reducing drift. Also, Stephen Foster of Foster and Associates Technology Consulting provided an update on current efforts to modernize AgDISP—the atmospheric model determining drift movement. He presented a proposed software development plan which would produce open-source software to use by the EPA, researchers and applicators for autonomous spray systems and the site-specific risk assessment concept. The next step forward is fundraising for this project.

**Support:** Sue Stewart from New Mexico discussed the topics for the 23-24 Athena program—educational material brought to the state conventions to support ag aviation operations' crew. The topic next season will be titled "The Five Blades to Propel your Health & Wellness" and will focus on a variety of wellness topics such as hydration, environment, relationships, etc.

The Support's convention activities in Palm Springs will include a Monday meet-and-greet program to take place at the Palm Springs Air Museum. The Athena program will also be presented during the Ag Aviation Expo. The topic for this year's Support Committee scholarship is "What value does ag aviation bring to your local economy?" and that information is on the NAAA **website**.

**NAAREF:** NAAREF President Perry Hofer of South Dakota announced that the curriculum for the PAASS program is well established, with program content determined for the educational program for the next two years. He also mentioned new funding sources, stating that there are now two state associations sponsoring PAASS at the $5,000 level, qualifying them for an ad in PAASS—Illinois and New Mexico. Hofer also mentioned that the Sunday fundraiser for PAASS, Dec. 3 at the Ag Aviation Expo, will be karaoke and called "Crooning for PAASS."

**Concluding Business:** Tom May with the Nebraska Aviation Trades Association made a $3,000 donation to NAAREF. Sue Stewart with New Mexico announced that their state made a $3,000 donation to NAAREF during the Covington match, and they are now donating an additional $2,000 to NAAREF, for a full $5,000 donation. Don Younglove with Illinois announced that their state made a $5,000 donation during the Covington match.

***From top to bottom, NAAREF President Perry Hofer accepts donations from Tom May on behalf of the Nebraska Aviation Trades Association, Sue Stewart on behalf of the New Mexico Agricultural Aviation Association and Don Younglove on behalf of the Illinois Agricultural Aviation Association.***

Before adjourning, President Craft recognized the leadership training program participants. He also reminded the Board of Directors of key takeaways from the meeting:

- Remind people in your state to book in the room block for the Ag Aviation Expo.
- Nominate a member for an award from your state/regional association.
- Complete the surveys that NAAA sends to members.
- Remind your state/regional members to turn in GPS data to the **MSU Raspet study**.
- Remind your state operators and pilots to join NAAA and the state/regional association.
- Consider hosting the Athena Project at your state/regional conventions.

- Sponsor a Support scholarship applicant. Also, check out the new Charles Stokes Memorial Turbine Training Scholarship.
- Challenge your state/regional association to donate to NAAREF.

## It's Here! Application Now Open for C-PAASS 2023—Certified-Professional Aerial Applicator Safety Steward

Aerial applicators, now more than ever, operate in an environment of competing interests. An ever-increasing demand for timely and effective applications is challenged by factors such as added regulatory burden, rising insurance costs and stiffer pesticide label language, just to name a few. The agricultural aviation industry is rising to these challenges and, in character, has moved to advance education, rather than regulation, as the path forward.

NAAA and NAAREF have jointly launched the Certified-Professional Aerial Applicator Safety Steward (C-PAASS) program to serve as the industry's flagship certification and as a roadmap for the pursuit of the best educational opportunities currently available. This voluntary program allows those aerial applicators who strive to constantly educate themselves to better their safety and application quality to be recognized for their efforts. Secondarily, the certification can signal to customers, regulators and others outside the industry their commitment to professionalism.

C-PAASS certification is offered on an annual basis to individual ag pilots, both operator and non-operator. As the first year for C-PAASS, its requirements are based entirely upon education and professional opportunities already available:

1. **Annual PAASS Attendance for three (3) years**
    - 2020-2021 season, AND
    - 2021-2022 season, AND
    - 2022-2023 season
2. **Biennial Operation SAFE Participation**
    - 2022 season, AND/OR
    - 2023 season
3. **Annual Membership in NAAA**
    - 2023
4. **Annual Membership in a State/Regional agricultural aviation association**
    - 2023

## To submit a 2023 C-PAASS application:

1. Check your eligibility at **https://education.agaviation.org/cpaass**
    - You will need to log in using your NAAA username/password. Contact **information@agaviation.org** if you need assistance.
2. If eligible, scroll to the bottom of the page and locate the **2023 C-PAASS Application** tile. Hover over it and click the green **Register (Free!)** button.
3. You will be prompted to attest to your completion of each of the requirements and directed to upload documentation of your 2023 membership in a State/Regional agricultural aviation association. NAAA Staff will be automatically notified to review your application once this documentation is submitted.
4. Your application will be reviewed within three (3) business days.
5. If your application is accepted, you will be provided a link to pay the certification fee (currently $100) and obtain your digital certificate.

This is only the beginning. As NAAA develops its own Learning Management System (LMS), new on-demand courses and content will be incorporated into C-PAASS. A wide variety of topics will eventually be included in the LMS, including those covered in 14 CFR Part 137 knowledge and skills and those on how to properly set up agricultural aircraft to make on-target applications.

**Apply for C-PAASS certification today!** Utilize it to inform regulatory officials and insurance agents and to market to your customers that you have undergone additional training and development to ensure you can provide the highest quality service.

## Important Call for GPS Data to Protect Manned Ag Aircraft from Drones

In 2022, an FAA advisory committee weighted with drone interests from Amazon, Google and other unmanned corporate interests suggested that the agency promulgate rules that drones operating beyond visual line of sight be permitted to:

- Increase their weight to 1,320 pounds
- Not equip with ADS-B identification technology
- Not give the right of way to manned aircraft when operating in rural, low-altitude airspace because they claimed there are no other users of this airspace.

As an ag aviator, you know these requests to be patently unsafe and based on false premises. As such, we call on you to help us collect information on ag aircraft's use of the low-altitude airspace. NAAA is working with and supports Mississippi State University's (MSU) Raspet Flight Research Laboratory and its continuing research on safe operational distances between low-altitude, manned aircraft and drones. The study's objectives are to:

1. Identify Ag Aircraft Operational Trends
2. Develop Ag Aircraft Operational Model
3. Validate Model through Observation/Collection of Empirical Data
4. Inform/Educate UAS Operators
5. Promote Safety in all Low-Altitude Ag Environments

**Your voluntary participation in this study is critical** to achieving these objectives. NAAA encourages you to donate your GPS flight log data to participate in this timely research. Logs from any year(s) are welcome and will be washed of any identifying information prior to use.
Many of you have previously contributed during the first stage of data collection from 2017 to 2020 when NAAA members donated 49,180 flight logs from 20 states. The second stage of the study began in 2021 and seeks to additionally include aircraft make and model info. These details are important, as the airspace modeling will be impacted by aircraft types differently, such as fixed-wing versus helicopter operations.

More GPS flight log data is needed to continue this study. Because of the diverse growing areas and unique geographical challenges experienced by aerial applicators, it is imperative that as many states and regions as possible are represented. This will ultimately help facilitate the safe integration of unmanned aircraft into these different airspaces.

As a reminder, NAAA and Raspet have agreed that all submitted information will remain confidential, and all GPS flight logs will be stripped of any personally identifying information before any research is conducted using the data.

There are several methods available to submit your data:

1. Request a secure upload link for larger uploads OR email directly to Madison Dixon, Research Director.
   **Email: mdixon@raspet.msstate.edu**
2. Mail a flash drive or other storage device to the address below. (The device will be immediately mailed back once data is received if a return address is provided):

   **Address:**
   Attn: Madison Dixon
   Raspet Flight Research Lab – Bldg. 2
   114 Airport Rd.
   Starkville, MS 39759

## NAAA Releases Book of the Century! Buy It Today

NAAA has released the book of the century—a century of agricultural aviation, that is.

One hundred years ago, an aerial crop dusting experiment spawned the birth of the agricultural aviation industry. To commemorate agricultural aviation's 100th anniversary, NAAA is pleased to present ***Agriculture's Air Force: 100 Years of Aerial Application***.

*Agriculture's Air Force* provides a new, updated account of aerial application's history, 35 years after Mabry Anderson's masterpiece, *Low & Slow: An Insider's History of Agricultural Aviation*, was published. NAAA's meticulously sourced book is based on a collective history of the agricultural aviation industry based on material from *Agricultural Aviation* magazine, *AgAir Update*, *Low & Slow* and other resources.

Beginning with ***Agricultural Aviation's* Spring 2021 issue**, NAAA published excerpts from *Agriculture's Air Force* and continued to do so through the **Fall 2021 issue**. Those stories are just a small slice of what's in the 268-page hardback edition, however. The complete book contains so much more.

*Agriculture's Air Force* delves into the intersection of agriculture and aviation. It chronicles the agricultural aviation industry's growth from its infancy in 1921 through the boom times after World War II and on to today's modern era of high-tech aerial application.

The finished hardback book has been years in the making but well worth the effort. "This is a significant piece of work covering not just the industry's history, but its essence," NAAA CEO Andrew Moore said. "We are proud of it and believe it will make a lasting contribution to the industry."

The story of agricultural aviation is much like the broader story of aviation: It is mostly punctuated with interesting smaller moments sandwiched between milestone developments. Aerial application is also the story of technological leaps and bounds.

*Agriculture's Air Force* covers five eras spanning more than 10 decades. In addition, it features 34 Spotlight pieces focused on significant individuals, organizations, trends, technologies and topics related to aerial application.

*Agriculture's Air Force: 100 Years of Aerial Application* may well be NAAA's most enduring 100th anniversary initiative. One thing's for sure: It is no textbook. The commemorative book is written from a fresh perspective that is entertaining and enlightening. Readers will come away with a new appreciation for agricultural aviation as a profession and the dedicated individuals who propel it forward.

## Order Your Copy of Agriculture's Air Force Today!

*Agriculture's Air Force* retails for $45, excluding shipping. Order it from **AgAir Update's Online Store**.