

NAAA eNewsletter

NAAA Discusses Manned and Unmanned Ag Aircraft on Business of Agriculture Podcast

NAAA CEO Andrew Moore joined member Bill Reynolds and Taranis's Mike DiPaola as guests on [The Business of Agriculture Podcast](#) hosted by Damian Mason this week. Reynolds is the president and CEO of Leading Edge Aerial Technologies. DiPaola is the chief commercial officer at Taranis, which uses high-resolution aerial imagery to generate AI-powered crop intelligence. Damian Mason is a farmer, businessman, speaker, author, podcaster and consultant. Damian has appeared on television and radio and can also be found on SiriusXM Radio – Laugh USA. He was NAAA's speaker for its 2020 Ag Aviation Expo Kickoff Breakfast. The panel was assembled to discuss the future of manned and unmanned aircraft in the aerial application sector.

Released May 22, the name of the episode is “Aerial Agriculture—A Bird’s Eye View of Drones, Manned Aircraft & Tomorrow.” Throughout the nearly hourlong episode, Mason and his guests covered several topics, including if manned ag pilots are fearful of being replaced by drones, the regulatory environment for UAS operations, advances in the efficacy of manned and unmanned aerial application equipment, the financial aspects of drone spraying, and more.

Aerial Agriculture – A Bird’s Eye View...



Here are selected excerpts, along with timestamps you can skip to in the episode to hear more:

(9:26) Moore, on whether there is a threat of drones replacing manned ag aircraft: “I don’t think it’s a threat. I think that it’s complimentary.”

(11:00) Reynolds, on the aerial application niche that drones fill: “Just those specialty locations where I’d like to think we’ve saved some lives already in some of the areas that are using unmanned aircraft. The rates per acre is really the key to this. A lot of the rates in California are 15 gallons per acre, and a drone’s only carrying 5 gallons or 10 gallons at the most. So you’re just never going to get the job done. So there’s no question the manned aircraft must stay; they will probably be here for my lifetime and maybe my kids’ lifetimes. But those specialty areas that are dangerous or very difficult to get to, [a drone is] absolutely the perfect solution. Trimming up edges of fields, near power lines—just eliminate that from the manned task and make everything safer. It’s just a terrific tool.”

(19:37) Moore, on the challenges of safely integrating unmanned aircraft into the national airspace: “You probably have 1 ½ million registered drones out there, 1 to 1 ½ million registered drones with the FAA. And you add another 600,000 manned aircraft—you have to have a safe airspace in which to operate. And one of the things that we’ve been pushing is to ensure always that an unmanned aircraft must give right of way to a manned aircraft. So whether that’s technology—having some sort of sense-and-avoid technology that requires that ... that’s fine. We don’t need someone to actually visually observe as long as it’s certified equipment by the FAA that shows that that sense-and-avoid equipment can actually sense and avoid a manned aircraft. So that’s something we’re pushing along with our other colleagues in ... the manned aviation space.”

(28:13) Reynolds, on the need for drones to always give the right of way to manned aircraft, especially when manned and unmanned aircraft operations are occurring in the same low-altitude airspace: “I can only speak to the agricultural side of this and applications, and integrating these unmanned aircraft into the national airspace is a very high priority, and is the primary focus on every COA that’s submitted to the FAA. We are operating down below 80 feet no matter what we do. So we are mixed up with the Air Tractors and Thrushes and helicopters, and we absolutely agree with giving way to the manned aircraft. We have landed numerous times, and we communicate with aerial applicators that we’re going to be out in certain areas, and we file NOTAMS. So we cover the rules, and we back-check ourselves, and it has worked out well. We’ve never had any close incursion of any kind because of that.”

(35:10) Moore, on the evolution and integration of technologies in the aerial application sector: “I foresee, just like you mentioned the see-and-spray from [John] Deer, that you’ll have Mike’s technology going out [and] doing the initial reconnaissance and shortly thereafter, all that data is being fed to the broader fields; to our manned aerial applicators; into those tight areas to Bill’s drones to make those applications. ... Definitely, before we celebrate the bicentennial of aerial application, that’s going to be happening.”

(43:08) Reynolds, on whether buying a drone to conduct spray missions makes sense money-wise: "If I'm gonna spend money to get more yield, how much do I have to spend, and what yield will I lose or gain? I guess that's always the balance in agriculture. So, the investment into unmanned aircraft to get operational is not that tremendous. Typically contractors or people that are using unmanned aircraft are getting a revenue offset back within the first 12 months."

Where to Watch or Listen to the Full Podcast Episode

Watch the May 22 episode of *The Business of Agriculture Podcast* in the video above or wherever you get your podcasts. The video version is also on [Acres TV](#), and the audio version of the episode is available on [SoundCloud](#).

NAAA Urges EPA to Reject Settlement Adding More Redundancy to NPDES Pesticide General Permit

As NAAA [recently reported](#), the EPA is considering a proposed settlement agreement to end a lawsuit brought by the Center for Biological Diversity that alleges the National Pollutant Discharge Elimination System (NPDES) Pesticide General Permit (PGP) reissued by the EPA in 2021 does not comply with the Endangered Species Act (ESA). The proposed settlement requires the EPA to conduct risk assessments for federally threatened and endangered species and their critical habitat for the 2026 PGP update.

In [comments sent to the EPA](#) on the proposed settlement, NAAA recommended the EPA oppose the settlement because it just adds one more layer of redundancy to an already redundant requirement. All of the pesticides that could be applied under the PGP already require a new registration or registration review that includes risk assessments for ESA species and habitats. Adding the requirement to the PGP only slows the process down and offers no additional safety to threatened and endangered species.

The PGP itself is redundant for the exact same reason—all pesticides that can be applied to areas covered under the PGP have already undergone risk assessment to ensure that they do not cause harm to the environment or people when used according to label instructions. NAAA will continue to work toward eliminating this overly burdensome rule.

U.S. Helicopter Safety Team Schedules Webinar June 7 Focusing on Bird Strikes

The United States Helicopter Safety Team (USHST) will host a webinar June 7 about how pilots can better protect themselves and their passengers from bird strikes and what to do if they occur. The free webinar will begin at 1 p.m. ET. Register [here](#).

Bird strikes have been in the news lately because airliners have had several such strikes in recent weeks. Bird strikes, however, are a recurring issue throughout the aviation community, especially among helicopters because rotary-wing pilots tend to fly them at lower levels than other aircraft.

The FAA published a Special Airworthiness Information Bulletin (SAIB) on Sept. 13, 2021, to provide the helicopter community with some strategies to avoid bird strikes. FAA rotorcraft section manager Jorge Castillo will discuss the SAIB during the webinar. He will be joined by Richard Dolbeer, wildlife consultant to the USDA, who will discuss bird migration. A review of bird strike accidents will follow that.

As is typical of many USHST webinars, the event will begin with a 10-minute overview of helicopter accident statistics to illustrate why safety is a paramount priority with the government-industry USHST. Pat Niven of Chevron and Mark Colburn, a retired Dallas police officer, will follow with a 20-minute overview of USHST helicopter safety enhancement Unmanned Aircraft Systems (drones) in High-Risk Environments. In certain situations, using a drone may provide a lower-risk alternative when compared to a traditionally piloted helicopter, such as transmission and distribution line inspections. The bird strike discussion will then begin.

If helicopter community members have questions or want the bird strike seminar to cover a particular topic, please let the USHST know through its general email at safety@ushst.org or contact the organization's communications specialists, Dan Sweet from the Helicopter Association International at dan.sweet@rotor.org, or Gene Trainor from the FAA at eugene.trainor@faa.gov.

Exhibitor Details for the 2023 Ag Aviation Expo: Booth Sales for Aircraft & Large Booth Space Now Open

Join us for the 2023 Ag Aviation Expo in [Palm Springs, California](#), Dec. 4-7. In addition to attending the NAAA Ag Aviation Expo, Palm Springs is full of great restaurants, bars, fun activities, and terrific weather! You can visit the Palm Springs Air Museum, enjoy an off road or BMW driving experience, play golf, visit museums and even gamble at a casino close to the convention center. The area offers many hiking trails and top-notch spas.

Booth Sales for Aircraft & Large Booth Space Now Open: If you plan to bring an aircraft, need a 20'x20'+ island booth, a 10'x30'+ inline booth or plan to be a Diamond or Platinum Sponsor, please contact [Lindsay Barber](#) ASAP. To ensure the best placement on the trade show floor, we appreciate knowing about aircraft and large booth spaces by the end of April.

The NAAA Trade Show will take place Dec. 5, 12 p.m.-5:30 p.m. and Dec. 6, 10 a.m.-4 p.m. Review the [NAAA Exhibitor Prospectus](#) and [exhibitor webpage](#) for further details, pricing and dates. The full schedule of events is available [here](#).

Details for the 2023 Ag Aviation Expo

- **Dates:** Dec. 4-7, 2023
- **Location:** Palm Springs Convention Center and Renaissance (the two facilities are attached)
- **Kickoff Breakfast Speaker:** **Burt Rutan**, Aerospace Legend
- **Schedule of Events:** See the current, tentative schedule [here](#).
- **Hotel:** [Details here](#).
- **Attendee Registration:** Opens in August.
- **Exhibitor Booth Sales:** Details [here](#) for large booth sales that open in late March and 10'x10' and 10'x20' booth sales that open on July 13. Please email [Lindsay Barber](#) if you would like to secure a large booth space (any booth size 10'x30' or larger).
- **Sponsorship Opportunities:** View the sponsorships opportunities [here](#). We have sponsorships available for all budget sizes. Please email [Lindsay](#) if you would like to secure a sponsorship from last year or be contacted about 2023 opportunities!
- **Auction Donations:** Thank you to Pratt & Whitney Canada for donating a PT6-34AG to this year's NAAA Live Auction. While we are still several months away from the Ag Aviation Expo, we are already [accepting donations](#) for the Live and Silent Auction. The earlier you inform us of your auction donation, the more advertising you will receive on the NAAA website and in NAAA publications. Support the aerial application industry by donating an item today. Email [Lindsay](#) with your donation details.

NAAA, National Pesticide Stakeholder Groups Meet with Biden Administration USDA and EPA Leaders on Endangered Species Issues

As pressure from environmental activists and federal court decisions has led the Biden administration toward more concrete endangered species protections within its pesticide policies, USDA and EPA administration leaders held a meeting two weeks ago attended by national agricultural and pesticide-user groups to hear their thoughts and concerns. NAAA took part in the meeting, which was led by the following Biden administration environmental appointees:

- **Robert Bonnie**, USDA Under Secretary for Farm Production and Conservation.
- **Jake Li**, EPA Deputy Assistant Administrator for Pesticide Programs, Office of Chemical Safety and Pollution Prevention.
- **Rod Snyder**, EPA Senior Advisor for Agriculture to the Administrator.

One administration pesticide policy dealing with endangered species protections is requiring filter strips between cropland and endangered species habitat. Pesticide stakeholders raised concerns about the amount of land this could potentially remove from production and the astronomical costs associated with neutralizing such land. NAAA CEO Andrew Moore (*pictured at right*) stated to the administration officials that the label is the law and applicators must ensure that they follow the label; however, it is nearly impossible for a farmer leasing from a landowner, or a commercial applicator to know and ensure that a filter strip is in place.

Moore also emphasized to administration officials that any imposed buffer zones should be wind directional since the law of physics prevents drift from traveling upwind, and commercial applicators, such as aerial applicators, have on-board meteorological equipment that can read wind direction in real time to avoid applying when air movement is moving downwind to a sensitive area.

NAAA will continue to keep the membership aware of these federal pesticide policies.

Pictured at top: From L-R, Robert Bonnie (USDA), Jake Li and Rod Snyder (EPA)

NAAA Submits Comments Opposing Changes to Application Exclusion Zone

Earlier this month, NAAA submitted comments to the EPA opposing its reconsideration of the application exclusion zone (AEZ). NAAA [previously reported](#) on these proposed changes to the AEZ in April. The AEZ is part of the 2015 Worker Protection Standard (WPS) revision and has gone through several iterations since first being proposed by the EPA under the Obama administration. Its initial iteration extended the AEZ to areas outside of the agricultural establishment on which the application is being made and to easements on the establishment. Shortly thereafter, political pressure resulted in the AEZ being altered in a more reasonable manner for agricultural interests. Unfortunately, this latest version mostly reverts back to the original AEZ rule due to court rulings in the Northeast brought forth by nongovernmental organizations.

Again, NAAA's comments opposed extending the AEZ to areas outside the agricultural establishment on which the application is being made and to easements on the establishment. In both cases, neither the applicator nor the grower can control the movement of people, allowing them to prevent an application from occurring.

NAAA also suggested that the EPA allow an application to resume once the applicator determines it is safe to do so, not just when the person leaves the AEZ. The AEZ is essentially a circular, 100-foot buffer zone that moves with the ag aircraft, so NAAA again recommended the AEZ be based on wind direction stating to the EPA that a person within the AEZ but off the agricultural establishment and upwind of the application is not at risk from drift due to the laws of physics.

Finally, NAAA reminded the EPA that the AEZ rule is completely redundant and unnecessarily burdensome. Pesticide labels and existing WPS rules already prohibit applicators from exposing anyone, be it a worker on the establishment or a bystander passing by on a road, to direct spray or spray drift. Adding an additional level of bureaucracy does not offer any additional benefits and can be used by activists to stop applications.

NAAA's final comments on the reconsideration of the AEZ are available [here](#).

NAAA Working to Protect Aerial Applications of Carbaryl and Methomyl

Last week NAAA submitted comments to the EPA on the National Marine Fisheries Service's (NMFS) biological opinion (BiOp) on carbaryl and methomyl. A BiOp is part of the pesticide registration review process involving the consultation between the EPA and the NMFS (it can also include the Fish and Wildlife Service depending on the species involved) to ensure the pesticide undergoing registration review does not cause harm to endangered species or their habitat.

The BiOp discussed using buffer zones next to water bodies for both aerial and ground application. NAAA once again recommended the buffers zones be wind-directional so that they could be sprayed in their entirety when the wind was blowing away from the water body. NAAA also noted that the EPA itself suggested the use of wind-directional buffer zones in their recently released proposed interim decision ([PID](#)) for carbaryl.

Unfortunately, the BiOp also referenced a proposal to ban all aerial applications of carbaryl except for grasshopper control. This proposal was not in the PID, so NAAA inquired as to where it was made. The EPA referred NAAA to an appendix in a draft evaluation that was released at the same time as the PID which indicated this proposal came from carbaryl registrants. Regardless, NAAA objected to this restriction, pointing out that pest resistance and unusually wet weather can both result in an increased need for aerial application of carbaryl. NAAA also cautioned the EPA against similar proposed restrictions on the aerial application of methomyl, which recently went through a [PID revision](#).

NAAA also reminded the EPA that all of the risk assessments being used to justify buffer zones and restrict usage of aerial application are based on the erroneous Tier 1 model in AgDRIFT. The next step in the process is for NMFS to consider the comments before issuing their final BiOp. NAAA will continue to monitor the registration review for both carbaryl and methomyl and fight for aerial application to remain an option for growers.

NAAA's full comments on the carbaryl and methomyl BiOp can be read [here](#).

2023 NAAA Membership Directory & Annual Report Mails

The 2023 NAAA Membership Directory & Annual Report has been mailed. Most members should receive their copy within the next couple of weeks.

The NAAA Membership Directory & Annual Report is an indispensable asset, and as the title suggests, it is only available to our valued members. At 224 pages, this year's directory is filled with valuable information. As always, it is loaded with operator and pilot contacts, as well as contact information for the premier suppliers of parts and services to the industry.

Other items of interest in the 2023 directory include NAAA's 2022-2023 annual report; how to apply for NAAA and NAAREF's Certified-Professional Aerial Applicator Safety Steward (C-PAASS) program; the [NAAA Member Code of Conduct](#); details about NAAA's NPDES pesticide general permit compliance resources; checklists for [how to respond to a UAV encounter](#) with an ag aircraft or [if fired upon while operating an ag aircraft](#); details on NAAA's [tower safety outreach resources](#); useful facts about the industry; a comprehensive timeline chronicling the agricultural aviation industry's 101-plus-year history; and details on various education, training and outreach resources available to members at little to no cost.

The directory also contains several handy forms, including the [NAAA Awards Nomination Form](#), as well as three NAAA scholarship programs collectively offering \$29,000 in scholarship funds this year—the [NAAA "Ag Wings of Tomorrow" Scholarship Program](#), the [Support Scholarship Media Contest](#), and NAAA's newest offering, the [Charles Stokes Memorial Turbine Training Scholarship Program](#).

We have gone to great lengths to ensure the accuracy of our membership listings but also recognize that perfection is a moving target. If your contact information has changed, you can update it anytime by logging into your member account at [agaviation.org](#). Enter your username and password and click on "Your Account" to get started. Don't forget to click SAVE CHANGES at the bottom of the page to record your changes. Those changes will sync in real time with NAAA's Online Member Directory.

While you're at it, add a headshot or company logo to your profile and become one of the faces of the aerial application industry. If you have any problems logging in to NAAA's website, call (202) 546-5722 for assistance.

Thank you for being a member of NAAA and for the work you do to ensure a safe, affordable and abundant supply of food, fiber and bioenergy for the world. It is the continued support of people like you that helps sustain this great industry.

NAAA Member Tim Bonnell Jr. Authors New Book on 'Aerial Application Insurance Fundamentals'

NAAA member Tim Bonnell Jr. has written a brand-new book designed to help aerial applicators understand the complexities of aerial application insurance.

Aerial Application Insurance Fundamentals: A Concise Guide for Aerial Application Operations is a practical reference for navigating the key fundamentals of property and casualty insurance for aerial application operators. Readers will learn how aerial application insurance is unique from other areas of insurance, what affects aircraft insurance rates, how to read an aircraft insurance policy, and how an aircraft insurance underwriter determines premiums.

One of Bonnell's goals in writing the book was to help readers better understand key exposures and insurance solutions that an aerial application operation will face. "Aerial application insurance is complex, and there isn't a comprehensive resource available for aerial applicators to learn more about their insurance exposures and coverages. This book was written to give aerial application insurance buyers as much pertinent information about aerial application insurance in as concise a manner as possible," he said.

Bonnell is the president and CEO of Aeris Insurance Solutions and a second-generation aviation insurance broker. He is also a longtime contributor to *Agricultural Aviation* who has written numerous insurance-themed articles for the magazine on the NAAA Insurance Committee's behalf.

More information about Bonnell's book can be found at aerisinsurance.com/book. It can be purchased in print and as an eBook on Amazon.com.

FAA Issues Airworthiness Directive for Ag Cats with TPE331 Engines

The FAA has issued an airworthiness directive (AD) for Ag Cat G-164A and G-164B aircraft that have a Honeywell TPE331 series engine installed. This AD requires the installation of a secondary retention feature (bolt, washer and safety wire) between the aircraft's propeller pitch control (PPC) linkage and the engine's PPC assembly to prevent loosening and possible detachment.

This AD is effective June 21, 2023, and requires compliance prior to June 21, 2024. Honeywell issued a [letter](#) detailing how to install the secondary retention feature in 2011 (*see photo below*).

NAAA previously reported on this issue in [June 2022](#) and [October 2021](#).

View the full AD [here](#).

Near Miss to Ag Airplane in Arkansas Highlights Lack of Knowledge and Safety of Certain Drone Operators

An ag aviator making an application south of Morrilton, Arkansas, had a near miss with a drone on April 12, according to an Arkansas County Sheriff's Office and an FAA incident report that stated an AT-802 ag aircraft had been making applications for a customer, who witnessed the incident. The pilot was in a routine turnaround while making an application at about 300 feet above ground level. The pilot reported there was approximately 1,000 feet of separation at first sight of the drone. At its closest point, the AT-802 had about 15 feet of horizontal separation from the drone. The pilot did not have time to take any evasive actions.

The drone operator was with the Arkansas Department of Transportation and flying the drone to survey land near where the aerial application was being made. The drone operator saw the ag aircraft working nearby but still elected to launch the drone. After the near miss, the drone operator stated that the ag aircraft sprayed the drone, so she landed it to clean the lens of the camera on the drone.

The ag pilot notified the customer using the ag aircraft's services that he had just had a near miss with a drone, so the customer called the police to report the incident. According to the police report, the drone operator told the responding officer that "the crop duster did not have a transmitter on, therefore she was unable to see where the duster was locate [sic]."

The drone operator's response underscores an unfamiliarity with FAA rules regarding safe operations between manned and unmanned aircraft. Federal Aviation Regulations §107.37(a) states:

Each small unmanned aircraft must yield the right of way to all aircraft, airborne vehicles, and launch and reentry vehicles. Yielding the right of way means that the small unmanned aircraft must give way to the aircraft or vehicle and may not pass over, under, or ahead of it unless well clear.

There is no requirement for the manned aircraft to be equipped with ADS-B or a transponder in Class G airspace where the operation took place.

NAAA is following this incident and will provide an update when new developments arise. If you have an encounter with a drone, use the [NAAA Ag Pilot-UAV Encounter Checklist](#) to properly report the incident. While it might seem redundant, it is critical that you both report the incident to the FAA National Safety Hotline and call your local FAA Flight Standards Office.

NAAA will continue to promote the importance of manned aviation safety to drone operators, the FAA and the public.

NAAA Launches LinkedIn Account

On the heels of the 2022 communications survey in which 76% of our members stated that NAAA's communications resources should primarily be focused externally, NAAA has launched our [LinkedIn page](#), in addition to our social media accounts on [Facebook](#), [Instagram](#) and [Twitter](#).

Following [NAAA on LinkedIn](#) is easy. We will use the platform to provide updates on the importance and professionalism of agricultural aviation, upcoming meetings, education and safety materials, as well as great pictures of ag aviators doing what they do best.

LinkedIn connects the world's professionals and companies, with 900 million members in more than 200 countries. NAAA's LinkedIn profile will attract people to learn more about the aerial application industry and recruit the next generation of ag aviators. Thirty-one percent of LinkedIn users are between the ages of 30-39, and almost 1 in 5 U.S. users are 18-29. LinkedIn is another great resource for NAAA to market the industry to the general public.

Has Your Aircraft Been Pattern Tested Yet? There Are Tools to Help

If you have not attended or scheduled an Operation S.A.F.E. Fly-In for this season yet, the time is becoming short in many parts of the country.

NAAREF recommends having your pattern assessed, at minimum, every other year or when major changes are made. This is vitally important to ensuring your aircraft is ready to make effective applications this season. Accordingly, NAAA has included biennial Operation S.A.F.E. participation as a core component of its [C-PAASS](#) professional aerial applicator certification.

If you are unable to attend one of these events, as an NAAA member, you have alternative options.

Earlier this year, NAAA [announced the release of DropFlight](#), an iPhone/iPad app that allows extremely fast scanning and analysis of water-sensitive spray cards, all on your Apple mobile devices. This tool, created in part by an aerial applicator, is targeted specifically for aerial applicators to use in assessing spray pattern uniformity, effective swath width and droplet size across the swath.

Download DropFlight from the App Store

Use NAAA member code: **NAAA23**

Another option for conducting your own spray pattern testing is to use AccuPatt, the same desktop (Windows/MacOS) software that Operation S.A.F.E. analysts use. Originally developed to run the string testing systems you may have seen at a fly-in, AccuPatt has grown to include spray-card-analysis functionality that can be used independently to perform spray-card-only pattern testing. Now, it is being offered to NAAA members for use in their own operation at no cost. A flatbed scanner is required to digitize the spray cards for analysis.

Download AccuPatt for Windows/MacOS

Consult the [User Manual](#) to get up and running

To further reduce friction in getting your spray pattern testing underway, DropFlight is also offering all the needed [testing gear](#). Available as a [convenient kit](#) or by the piece, DropFlight's card mounting system makes it simple to lay out cards uniformly and in the correct orientation to the wind. This testing gear will work with DropFlight and AccuPatt and is the fastest and most convenient way to acquire all the equipment you need to conduct your own pattern testing.

As always, if you consult with a [NAAREF-recognized Operation S.A.F.E. analyst](#) about your pattern testing data, they can report this to NAAREF as participation in Operation S.A.F.E. NAAA members will receive an official letter of participation and credit toward C-PAASS certification.

Ag Aviation Expo Sponsorships Available: Boost Your Company's Brand!

Join us for the [2023 Ag Aviation Expo](#) in Palm Springs Dec. 4-7. [Sponsorship sales](#) are open for this year's convention. Branding at the Ag Aviation Expo is a great opportunity to get your message in front of the agricultural aviation industry and reach a targeted and nationwide audience of aerial applicators in North America—an audience responsible for applying 28% of crop protection products to commercial cropland in the U.S.

[Get your company name](#) in front of the expected 1,500-plus operators, ag pilots and other attendees directly related to the agricultural aviation industry through an Ag Aviation Expo sponsorship.

Six reasons why you should be a sponsor at the 2023 NAAA Ag Aviation Expo:

1. A targeted audience will see your company's name and/or logo.
2. Sponsorship enhances your company's credibility and rapport.
3. You will gain brand awareness and recognition.
4. You will generate new sales and/or leads and potential business partnerships.
5. You can drive attendees to your booth and message through your sponsorship.

6. According to a post-convention survey, 75% of aerial applicators stated that they would be “very likely” to use the products and services of a company that sponsors an event at the Ag Aviation Expo. View [sponsorship opportunities here](#).

By becoming a sponsor, attendees will:

- Remember your company, services and products.
- See you as a supporter of the ag aviation industry.
- Recognize your brand.
- See you as a partner and industry visionary.
- Hold you above others in purchasing decisions.

For more information, contact [Lindsay Barber](#) by email or phone at (202) 546-5722.

Makeup PAASS Programs Now Available for 2021, 2022 and 2023 – Get C-PAASS Certified Today!

The impact of the PAASS Program on reducing the number of agricultural aviation accidents and drift incidents is proven—26% reductions in both categories since the program first hit the stage. In an effort to present the program’s life-saving curriculum to those who may have missed it, the National Agricultural Aviation Research and Education Foundation (NAAREF) has leveraged the NAAA Education Center to host recorded webinars of the PAASS Program from 2021, 2022 and 2023.

If you want to be C-PAASS-certified for the 2023 season but missed one of these three PAASS Programs, this is your opportunity to fulfill that requirement and complete your C-PAASS application. If you missed the 2023 PAASS Program, it is now available for credit for \$850. Starting July 1, its fee will increase to \$1,700. The 2021 and 2022 programs are each now available for credit for \$1,700.

NAAA members also have the option to purchase one year of unlimited access to not-for-credit versions of PAASS for \$120. The not-for-credit versions of the 2021 and 2022 programs are available now, and the 2023 program will be available starting July 1. More than just a review for yourself, educate your ground crew or other stakeholders to impress upon them the importance of safety and environmental professionalism in your operation. The \$120 option will not give you official credit for PAASS attendance and will not count toward C-PAASS.

The best way to experience PAASS is a live program at your state/regional agricultural aviation convention. However, situations occur that may prevent this from happening. By offering these online options to make up PAASS, everyone can benefit from the wealth of information presented and help move the needle in preventing ag aviation accidents.

[Click here](#) to view all archived PAASS Programs.

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. Secondly, 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.

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