

NAAA eNewsletter

NAAA Responds to FAA Part 137 Certification Changes for UAS, Highlighting Safety and Competitive Concerns

This week, in coordination with industry stakeholders, NAAA issued a letter to Federal Aviation Administration (FAA) Acting Administrator Polly Trottenberg regarding changes to the Part 137 certification process for Uncrewed Aircraft Systems (UAS) operators outlined in [FAA Notice 8900.659](#). This notice was issued June 13 and was summarized in the [June 22, 2023 NAAA eNewsletter](#).

In the letter, NAAA addressed the changes and expressed concern over FAA policy that may impact the safety of its crewed ag aircraft pilots who share this airspace and competitive concerns favoring new UAS businesses entering the aerial application industry over veteran crewed and UAS aircraft businesses.

The notice relaxes the requirement for FAA-administered [§ 137.19\(e\) Knowledge and Skills tests](#), allowing for new UAS applicants to self-administer the test. It also completely relieves the FAA of any required regular surveillance for UAS operators. The FAA justified these changes by deeming UAS operations as “lower risk” than other operations. NAAA pressed for clarity on how this risk assessment was made and to whom the “lower risk” is in reference. Citing specific NTSB accident reports, NAAA asserted that crewed Part 137 operators and pilots are a clear risk bearer of uncrewed Part 137 operations. Further, the unique nature of already busy airspace in agricultural areas during key application windows heightens the need for UAS operators entering this airspace to have rigorous FAA-verified competency to safely operate there.

The notice details a new streamlined process for Part 137 UAS applicants to receive their operating certificate through a central office via email. NAAA expressed concern that this separate centralized approach for UAS may prove to further alienate crewed and uncrewed Part 137 operators, as they would deal with distinctly different FAA officials and oversight, even if treating adjacent fields. NAAA stressed that as airspace becomes concentrated with interacting crewed and uncrewed Part 137 operations, FAA safety coordination becomes more and more important.

There were also distinctly positive changes in the notice, in which NAAA commended the FAA. A minimum of a third-class medical will be required for UAS operators, something NAAA has pushed for across all commercial UAS operations for years. UAS operators will also have a new requirement to generate operations manuals and training programs. Regarding the shift to a UAS central office, it is hoped that the relief FSDOs will get through these changes will subsequently expedite processing for crewed and mixed (crewed/uncrewed) Part 137 applicants.

NAAA will report updates on this matter, including the associated update of [Advisory Circular \(AC\) 137-1](#), when it is made available.

You can [read the letter in its entirety here](#).

NAAA Taking Every Opportunity to Press FAA on Safe UAS Integration

Last week, NAAA submitted comments on two Petitions for Exemption to the Federal Aviation Administration (FAA). These petitions, both from Uncrewed Aircraft System (UAS) light show companies, were seeking relief from portions of the [14 CFR Part 48](#) requirements for registration and marking of small UAS. The basis for each company's claim is financial, as they have thousands of UAS in inventory that require individual marking, registration and (every three years) reregistration.

One petition was merely seeking an alternative process to renew all their previously registered/marked UAS at once (think a spreadsheet of registration numbers). The other petition sought to apply for a single registration number for their entire swarm of UAS, though it was not clear how they would achieve this through the specific sections of the CFR they requested exemption from.

NAAA commented against the concept of a single registration number being used for an entire UAS swarm but in favor of the FAA providing an alternative method for standard reregistrations to be applied for in a batch format to relieve unnecessary administrative overhead within both the private sector and the FAA itself. However, NAAA also used these comments as a platform to continue imparting the importance of UAS safety to the FAA. An excerpt, included in both comments, is copied below:

NAAA has a shared goal with the FAA of enhancing aviation safety, not abating it. As incremental changes are continually made with precedent-setting exemptions to 14 CFR regarding UAS, NAAA grows increasingly concerned of the hazard posed for crewed aircraft. Alone, exemptions such as this may not seem significantly impactful. However, put together in the broader context, it appears that the FAA has found itself on a path toward prioritizing the integration of UAS into the NAS over the safety of crewed aviation.

NAAA would like to reiterate to the FAA its position that the safety of crewed aircraft should always be prioritized, and that UAS should always give the right-of-way to crewed aircraft. Regarding beyond visual line-of-sight (BVLOS) operations, NAAA also reiterates to the FAA that detect and avoid (DAA)

systems should be certified and that shielded operations, as prescribed by the UAS BVLOS Aviation Rulemaking Committee (ARC), should not be permitted in any environments or under any circumstances. NAAA has continually urged the FAA to prioritize safety regarding these matters, most recently in a 2022 letter regarding the UAS BVLOS ARC Final Report and again in a 2023 comment on Docket FAA-2023-1256 regarding BVLOS operations.

You can view the petitions, as well as NAAA's comments on them, at the links below:

- [FAA-2022-1737 – NAAA's Comments](#)
- [FAA-2023-0471 – NAAA's Comments](#)

NAAA Ag Aviation Expo Booth Sales Opened Last Week with Success

Last week, the 2023 Ag Aviation Expo booth sales opened with a lot of interest for the NAAA annual convention in Palm Springs, California, Dec. 4-7. One hundred and one (101) companies purchased exhibit space on the first day of booth sales (and large booths sold in advance). The average first day of booth sales over the past 10 years has been 100 booths sold. We are grateful for NAAA member companies that exhibit each year!

Take a peek at the [floor plan](#) to view the companies that will be represented in Palm Springs. Many additional companies will purchase booth space between now and the start of the Ag Aviation Expo; check back often as the list of exhibitors increases.

Potential exhibitors—there is still plenty of space for you! Visit our [exhibitor webpage](#) for more details.

[Attendee registration](#) will open in early August!

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 early August.
- **Exhibitor Booth Sales:** Booth Sales Open [here](#).
- **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. Please consider [making a donation](#) 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 [Lauren](#) with your donation details.

NAAA Hires Associate Director of Meetings & Marketing

NAAA is excited to announce the hiring of Lauren Henretty, CMP, as the association's new Associate Director of Meetings & Marketing. Lauren brings 20 years of experience working for associations in the education, meetings and management space. She most recently worked as associate director and education program planner for the Pediatric Pharmacy Association. Lauren will use her experience to help in the planning and execution of the Ag Aviation Expo, board meetings, other industry events and NAAA marketing initiatives.

Lauren is a graduate of the University of Pittsburgh and lives with her husband and daughter in southern Maryland. Please help us in welcoming Lauren to the NAAA staff.

Moore's Aerial Applicators Makes Cover of Two N.C. Pubs

Moore's Aerial Applicators owner/operator Mike Rivenbark had the good fortune of being the cover story subject of not one but two North Carolina publications recently. Agricultural aviation in general benefited from the positive press, with both articles focusing on the advantages of treating crops via aerial application.

Moore's Aerial Applicators' ag planes appeared on the cover of the Summer 2023 issue of [Home Grown](#), an advertising supplement to *The Sampson Independent*, a newspaper in Clinton, North Carolina, where Rivenbark's operation is based. Moore's AT-502XP also graced the cover of [Farming Matters](#), a Dublin County, North Carolina, publication.

Rivenbark and his company were featured under the headlines "Agricultural Aviation technology: When timing and cost are of the essence" in *Farming Matters* and "Agricultural from the air: Moore's Aerial Applicators of Clinton treats crops from up top" in *Home Grown*.

Moore's Aerial Applicators' territory in eastern North Carolina is home to a lot of small farms, which means, "We can spray three acres up to 3,000 acres" in any given job, Rivenbark told *Home Grown*. Blueberries are one of Rivenbark's main crops. His operation treats about 5,000 acres of blueberries, spraying those fields about seven times a year. Rivenbark also flies his AT-502XP to Nebraska for a few weeks

each summer, where he'll cover about 20,000 acres over a two-week span. Larger planes, such as the 502XP, can average 150 to 200 acres an hour, whereas smaller ag planes average 75 to 100 acres an hour, *Home Grown* reported.

Even though Duplin County is mainly rural, not everyone who lives there understands what aerial applicators do or the care and professionalism ag pilots exercise when they are plying their trade. As *Farming Matters* put it, Rivenbark is an "eager educator," whether he's educating a farmer about the advantages of aerial application or clearing up misperceptions non-farming residents may have. One time a woman posted a video on social media of one of Rivenbark's planes spraying a squash field next to her yard. In the recording, she accused Moore's Aerial Applicators of killing some bushes in her yard. As Rivenbark recounted, he called the upset neighbor and explained what he had been spraying and how it wasn't possible for anything he was spraying to kill her bushes. "She took the video down, but he asked her permission to post it himself because he thought it was a good educational opportunity," *Farming Matters* wrote.

NAAA commends Rivenbark for being an agricultural aviation ambassador to his customers and community and for the positive coverage he garnered thanks to his amiable advocacy.

Summer 2023 Issue of Agricultural Aviation Now Online!

The Summer 2023 issue of *Agricultural Aviation* is available [online](#) and in the Agricultural Aviation Magazine App. Prominent stories include an examination of UAS business considerations featuring ag aviation businesses that have incorporated a drone into their operations, bringing migrant labor into operations, and much more!

Featured content in the Summer 2023 issue includes:

- **UAS Aerial Application Business Considerations**
Early adopting aerial applicators are complementing their manned aircraft fleet with ag drones
- **UAS Insurance Options**
A primer on UAS insurance options
- **Bringing in Migrant Labor to Help at Your Operation**
The process of bringing in migrant labor to assist with ag aviation work is complex and time-consuming, so it is important to fully understand the process and begin early to ensure you have migrant workers at your operation when you need them
- **Strike Gold at the 2023 Ag Aviation Expo in Palm Springs This December**
Join NAAA at the 2023 Ag Aviation Expo in Palm Springs, California, Dec. 4-7
- **A Winning Combination**
NAAA's aerobatics scholarship with trainer Greg Koontz is enhancing ag pilots' safety
- **Enhancing Rainfall with Electrostatically Charged Water Droplets**
Clouds seeded with electrostatically charged water droplets increased rainfall 20%-30% over unseeded clouds, trials found
- **5 Predictions on the Future of the Aerial Application Industry**
NAAA President Craig Craft peers into his crystal ball

Back issues are available in *Agricultural Aviation's* [Issue Library](#).

Get the Free Agricultural Aviation App

If you haven't installed the free Agricultural Aviation Magazine App on your smartphone or tablet, you are missing out on a great way to tap into a library's worth of *Agricultural Aviation* issues in the palm of your hand. Download the Agricultural Aviation Magazine App and see how easy it is to use. The app is compatible with all [Apple](#), [Google](#) and [Amazon](#) mobile devices and can be downloaded from their respective app stores by searching "Agricultural Aviation Magazine." Enable push notifications to be alerted when new digital editions are published and to receive occasional notifications about pertinent articles.

Ready to Become an Operation S.A.F.E. Analyst? Attend Training – September 2023

WRK of Arkansas will be conducting an [Operation S.A.F.E.](#) Analyst training course Sept. 5-8. The training will take place at WRK facilities at 153 92nd W, Lonoke, Arkansas. Two packed days of classroom instruction will be followed by a student-led pattern testing clinic at the Carlisle Municipal Airport, Carlisle, Arkansas.

This training will be appropriate for anyone who wants to become an [Operation S.A.F.E. Analyst or Technician](#). It will also be a good refresher for anyone wanting an update on the latest analysis equipment and ag aviation research. If you need to be recertified as an analyst or a technician, this training will also cover that. All graduates will have their names submitted to NAAREF for approval as either an analyst or a technician.

With the growth of [C-PAASS](#), the demand for Operation S.A.F.E. is expected to increase dramatically. WRK's Operation S.A.F.E. Analyst training is your opportunity to learn how to operate the flight line collection setup, the analysis equipment and software, and gain knowledge on how to interpret ag aircraft application patterns and make recommendations. More information on the training will be forthcoming. If you are interested in attending, contact Dennis Gardisser at (501) 676-1762 or dgardisser@icloud.com.

Grant Lane of Lane Aviation in Rosenberg, Texas, Passes

The agricultural aviation industry lost one of its titans with the passing of Grant Lane on July 12. Grant was the longtime president and CEO of Lane Aviation Inc., which was founded in 1945 by Grant's father and uncle, George and Milton Lane, respectively.

Grant Lane took a hands-on approach with his customers. As the first company to become an Air Tractor dealer in 1974, Grant and Lane Aviation had a seemingly ubiquitous presence at state, regional, national and international ag aviation conferences. "At Lane Aviation, we take great pride in providing the absolute best products and services in the industry," Grant declared in a note to customers on Lane Aviation's website, which included this pledge: "I make it a point to work personally with every client to ensure they leave satisfied to the fullest extent."

Grant put those words into action often. After Grant was named the co-recipient of NAAA's 2011 Larsen-Miller Community Service Award, in a piece written for *Agricultural Aviation's* January/February 2012 issue, Sun Valley Dusting Company owner/operator Pat Kornegay described Grant as the "ever-present Air Tractor dealer who is always there at the state, national or international conventions with a warm smile and a firm handshake." Kornegay continued:

He is also known to many of us as the guy who has shown up on our airstrip in the middle of a hot season, stepped out of his late model Baron in a starched, clean shirt and jeans, broke out the tools and dived into changing a fuel control unit or starter generator that he had brought with him. After putting us back in the air quickly, and with the ever-present smile and handshake, he hops back in his airplane and disappears over the horizon.

Lane Aviation celebrated its 75th anniversary in 2020, and Grant received numerous accolades of his own over the years. Together, Grant and his father, George Lane, received NAAA's prestigious Agrinaut Award in 2006 for Lane Aviation's creation in the 1970s of the Lane Brake, a major breakthrough in pump fan brake technology.

Grant Lane headed over the horizon for the final time on July 12. Among the numerous relatives Grant is survived by are his brother, Mark Lane, Lane Aviation's chief pilot, and his son, Logan Lane, Lane Aviation's vice president.

The staff, board and members of NAAA extend their deepest condolences to the Lane family and Grant's extended Lane Aviation family in their time of grief. Per Grant's wishes, there will not be any funeral services, but Lane Aviation will host a celebration of Grant's life sometime in the fall.

In lieu of flowers, the Lane family is requesting donations be made to your local blood bank or to the PAASS Program in Grant Lane's name. Donations to PAASS may be made [online here](#) or by mailing to:

National Agricultural Aviation Association
1440 Duke Street
Alexandria, VA 22314

NAAA Represents Agricultural Aviation Industry Before Key Congressional Members at Tarkio, Missouri Air Show

On July 9, NAAA made what has become an annual sojourn to the 17th Wingnuts Flying Circus air show in Tarkio, Missouri. The air show is primarily organized by U.S. Rep. Sam Graves (R-Mo.), chair of the U.S. House of Representatives Committee on Transportation. As part of the annual air show, a town hall meeting on general aviation issues is hosted by Congressman Graves consisting of national leaders of general aviation organizations and congresspersons involved in transportation issues.

This year was no different, and NAAA CEO Andrew Moore participated in the townhall representing issues facing the agricultural aviation industry to the half a dozen key congressional members in attendance that serve on the House Transportation & Infrastructure Committee—four of which either chair or serve as the ranking members of its subcommittees. With the FAA reauthorization bill scheduled for consideration on the House floor next week, Moore pleaded to the legislators and audience for further protections in the bill to protect low-altitude, manned aircraft pilots operating in that airspace. Moore emphasized the \$37 billion a year value to corn, soybeans, wheat, cotton and rice production in the U.S. alone due to yield gain from aerial application that also results in the preservation of 27.4 million acres of land—an area roughly the size of Tennessee (or 62% of the size of Missouri). As such, Moore stated directly to the federal legislators, "I plead to the congressional members here—many if not all of which have farmers that rely on aerial application services—to ensure that the House of Representatives FAA reauthorization bill includes marking and location-logging requirements for rural towers 10 feet in diameter or less and between 50 to 200 feet. And that drones must give right-of-way to manned aircraft. This is an imperative safety issue."

The townhall panel included: U.S. Rep. Sam Graves (R-Mo.); U.S. Rep. Rick Crawford (R-AR); U.S. Rep. Troy Niels (R-Texas); U.S. Rep. Sharice Davids (D-Kan.); U.S. Rep. David Rouzer (R-N.C.); U.S. Rep. Garrett Graves (R-La.); Former FAA Acting Administrator Dan Ewell; AOPA President Mark Baker; International Council of Air Shows President John Cudahy; NBAA President Ed Bolen; GAMA President Pete Bunce; AUVSI President Brian Wynn; EAA President Jack Pelton; NATCA Central Regional Vice President Aaron Merrick; HAI President Jim Viola; Reliable Robotics President Robert Rose; and NAAA CEO Andrew D. Moore.

Once again and for the 17th time, the Wingnuts Flying Circus event brought together general aviation pilots, aviation industry leaders and government officials to share mutual passions for flying. At last year's show local agricultural aviation operator Adam Meyerkorth participated in the Wingnuts Flying Circus air show, which demonstrated and promoted ag aviation's importance and [centennial](#).

U.S. Congressman Sam Graves (R-Mo.), chairman of the House Transportation Committee, jests with NAAA CEO Andrew Moore at the Wingnuts Flying Circus air show GA townhall meeting in Tarkio, Missouri.

NAAA Mourns Loss of Adam Parnow in Second Fatal Ag Accident of 2023

The members and staff of NAAA mourn the loss of Adam Parnow of Crookston, Minnesota, who was fatally injured June 27 in the second fatal ag accident of 2023. Adam was born on Dec. 13, 1983, and was 39 at the time of his passing.

Adam graduated in 2007 from the University of Minnesota Crookston with a Bachelor of Science degree in natural resources – aviation. He received both his private and commercial pilot licenses while in college. Following graduation, Adam spent time as a range tech with the U.S. Fish and Wildlife Service in Colorado and as a **hotshot** firefighter with the Bureau of Land Management Snake River Hotshots. In 2009, he sprayed his first field, beginning his lifelong career in ag aviation. Adam also enjoyed snowmobiling and fishing.

Adam is survived by his parents, brothers and extended family. His visitation was held on July 2, followed by funeral services on July 3 at Trinity Lutheran Church in Crookston, Minnesota. In lieu of flowers, the family suggests donating to the Adam Parnow Take A Kid Fishing Scholarship. Memorials may be sent directly to United Valley Bank, PO Box 619, Crookston, MN 56716.

Adam Parnow Take A Kid Fishing Scholarship
United Valley Bank
PO Box 619
Crookston, MN 56716

View Adam's full obituary [here](#). Please keep his family and friends in your prayers as they mourn his loss.

AD issued for GE M601 and H80 Series Propeller Governors

The FAA is adopting a new airworthiness directive (AD) for certain GE Aviation Czech (formerly Walter) M601E–11AS, M601E–11S, H75–100, H80–100 and H85–100 model turboprop engines. These engines are known to be installed on Air Tractor AT-400 and AT-500 series; Allied Ag Cat Productions Inc. (formerly Grumman) G-164 series; and Thrush Aircraft (formerly Quality, Ayres, Rockwell) 510G and S-2R series.

This AD was prompted by reports of multiple failures of the needle bearing installed in propeller governors having part numbers (P/Ns) P–W11–1 or P–W11–2, caused by self-generated debris from the needle bearing, which led to oil contamination.

This AD requires replacing the affected propeller governors with a redesigned propeller governor with P/N P–W11–4 or P–W11–5.

Compliance with this AD for affected engines is required by April 15, 2026. View the complete AD [here](#).

RPAAS Workshop Taking Place in Early October for Uncrewed Aircraft System Users

If you already operate an Uncrewed Aircraft System (UAS) or are interested in diversifying your operation with a UAS, you can learn more about the technology at the Remotely Piloted Aerial Application Systems (RPAAS) **Workshop**, Oct. 3-5 at the University of California, Davis. The RPAAS workshop is in its sixth year and presentation topics include international regulatory updates, manufacturer updates, end user updates (agriculture, vector control, industrial vegetation management, public health), research updates, legal and registrant updates, as well as drone demonstrations. Review the agenda and register [online](#).

The event is being planned by the RPAAS Committee, including Dr. Dan Martin of USDA-ARS and Bryan Sanders of HSE-UAV. The event will feature speakers familiar with the aerial application industry including Dr. Dan Martin, Amy Blankinship of the EPA and John Attebury of the FAA.

Apply for 'Ag Wings of Tomorrow' Scholarship by Aug. 31

From seeking a mentor to finding the funds for training, the road to becoming an ag pilot is fraught with obstacles, but having \$5,000 in seed money certainly helps. Thanks to the generous support of BASF and Thrush Aircraft, \$20,000 in aid is available through the **2023 NAAA "Ag Wings of Tomorrow" Scholarship Program** to assist four aspiring ag pilots in their journey.

The goal of NAAA's "Ag Wings of Tomorrow" Scholarship Program is to strengthen the aerial application industry by helping operator members bring new pilots into the profession and help fund their training. Applicants must be sponsored by an NAAA Operator member. Scholarship recipients may use the proceeds for flight training or aviation or ag-related coursework at a university, college, community college or other institution of higher learning. A stipend for a trainee in an NAAA Operator-sponsored apprentice program is also permissible. The scholarship program is administered by NAAA and funded by educational grants from BASF and Thrush.

This year, NAAA will award up to four scholarships valued at \$5,000 each. Investing in aspiring ag aviators is a win-win for NAAA Operator members and individuals seeking training funds to support their pursuit of becoming a professional ag pilot.

How to Apply

To be considered for the 2023 scholarship, along with completing the two-part application, every applicant must submit:

- **A letter of recommendation** from the NAAA Operator member sponsoring the applicant.
- **An essay of 250 words or less** explaining why the applicant wants to pursue a career in agricultural aviation and how they would use NAAA's "Ag Wings of Tomorrow" Scholarship to further their education and training.
- **A one-page résumé or list of activities** detailing all agricultural and aviation experiences, education and training.

Last year NAAA awarded \$5,000 scholarships to Ross Edwards of Sherwood, Arkansas; Tommy Koebel of Geneva, Illinois; Drew Kroeplin of Highmore, South Dakota; and Adam Jacobs of Graymont, Illinois (pictured above with his sponsor, Scott Petersen, at left, of Pontiac Flying LLC). NAAA will announce the recipients of the 2023 "Ag Wings of Tomorrow" Scholarships in December at the Ag Aviation Expo in Palm Springs, California.

Application Process

To learn more about the 2023 NAAA "Ag Wings of Tomorrow" Scholarship, review the [application instructions and checklist](#).

Applicants must apply using NAAA's [online application](#). The applicant will fill out ALL applicant and sponsor information. The NAAA Operator Sponsor must write a letter of recommendation on behalf of the applicant. Upload all required material noted in the Application Checklist and any additional supporting documentation using the Ag Wings of Tomorrow Scholarship's [online application portal](#).

A link to the scholarship application portal can also be found at AgAviation.org/scholarship.

Please contact NAAA at (202) 546-5722 or information@agaviation.org for clarification about any of the application requirements.

While the applicant must be sponsored by an NAAA Operator member, NAAA membership is not a prerequisite for applying for the scholarship. Still, becoming an NAAA Associate member is an excellent way for candidates to learn more about the industry and augment their training.

The deadline to apply for the 2023 "Ag Wings of Tomorrow" Scholarship is Aug. 31.

Restrictions

With the introduction of the new [Charles Stokes Memorial Turbine Training Scholarship](#) this year, applicants may only apply for one NAAA pilot-training scholarship per year. They can apply for the NAAA "Ag Wings of Tomorrow" Scholarship or the Charles Stokes Memorial Turbine Training Scholarship, *but not both in the same year*.

NAAA Operator members may only sponsor one NAAA "Ag Wings of Tomorrow" Scholarship applicant a year. They can also sponsor a Charles Stokes Memorial Turbine Training Scholarship applicant in the same year, but the applicants cannot be the same person applying for both scholarships in the same year.

Two \$3,000 scholarships are available for turbine training to eligible NAAA Operator and Pilot members applying for the [2023 Charles Stokes Memorial Turbine Training Scholarship](#).

Turbine Training Funds Available Through Charles Stokes Memorial Turbine Training Scholarship

Two \$3,000 scholarships are available to eligible NAAA Operator and Pilot members for turbine transition training through the newly created Charles Stokes Memorial Turbine Training Scholarship. The new NAAA scholarship program is funded by a generous educational grant from Jim Mills of Turbines Inc., who established the scholarship in memory of Charles Stokes (*pictured at right*). It is administered by NAAA.

The new turbine transition scholarship will be awarded starting this year. Here's what you need to know about the 2023 Charles Stokes Memorial Turbine Training Scholarship.

Key Details

Purpose: The Charles Stokes Memorial Turbine Training Scholarship was created to provide training funds to agricultural pilots with a minimum of 150 hours of ag time for use at a turbine transition course or program. The scholarship must be used for turbine flight training at a qualified flight school or turbine training facility.

Amount: The 2023 Charles Stokes Memorial Turbine Training Scholarship Program will award up to two one-year, \$3,000 scholarships to deserving, qualified ag pilots participating in a flight training program focused on turbine transition training. All funds are in U.S. dollars.

Eligibility: Applicants must:

- Have a minimum of 150 hours of ag time.
- Be a Pilot, Affiliated Operator or Operator member of NAAA.
- Be sponsored by an NAAA Operator member in the Operator dues category who will write a letter of recommendation on their behalf. (*Operator applicants may not sponsor themselves; another NAAA Operator member would need to sponsor them.*)

How to Apply: Applicants must apply using NAAA's online application process. A link to the online application is available [here](#).

Deadline: Aug. 31, 2023

Restrictions:

- Applicants may only apply for one NAAA pilot-training scholarship a year—*either* the Charles Stokes Memorial Turbine Training Scholarship *or* the NAAA “Ag Wings of Tomorrow” Scholarship, *but not both in the same year*.
- NAAA Operator members may only sponsor one Charles Stokes Memorial Turbine Training Scholarship annually. They can sponsor an NAAA “Ag Wings of Tomorrow” Scholarship applicant in the same year, but the applicants can't be the same person applying for both scholarships.

Go Deeper

Learn more about the application process for the 2023 Charles Stokes Memorial Turbine Training Scholarship [here](#).

July is Ag Aviation's Busiest Month for Hours and Accidents, Brush Up on Your Fly Safe Messages

July is the month with the greatest pest pressure and hence the busiest time of the year for Agriculture's Air Force to protect U.S. cropland. Unfortunately, it is also the month that accumulates the highest number of ag aviation accidents, including fatal ones. Sadly, earlier this week, with the year's seventh month approaching, we lost our second ag pilot of 2023 when Adam Parnow was fatally injured in an accident in Minnesota.

This July doesn't have to be like all the others. NAAA has a plethora of information to keep safety at the forefront, and it is proven that our continuing education resources reduce ag aviation accidents, in addition to enhancing our environmental professionalism. So tap into our huge inventory of [Fly Safe messages](#) that address accident prevention and digest them daily to keep safety at the forefront of your mind and make July an accident-free month.

Beacon Aviation Insurance Services Inc. Now Writing Workers' Compensation for Ag Aviation

Competition is always good for the consumer. In the case of workers' compensation insurance for aerial application operations, after one insurance underwriter announced it would no longer carry such workers' comp insurance earlier this year, it would have left just a single underwriter available to provide the needed insurance to the industry. Thankfully, under the leadership of Frank Kimmel of Kimmel Aviation Insurance Agency, a number of ag aircraft insurance underwriters and brokers successfully sought a second ag aviation industry workers' compensation underwriter in Beacon Aviation Insurance Services Inc. As stated on its [website](#), Beacon now provides coverage for ag aviation workers' compensation, in addition to a full range of other types of insurance for general aviation businesses. Welcome, Beacon Aviation Insurance Services!

Avoid Getting Grounded by the Heat This Summer

With large swaths of the South, Midwest and West currently feeling the effects of a [major heat wave](#), and as seasonal temperatures continue to rise as ag pilots enter the height of their flying seasons in July, it's important to take precautions to [protect yourself and your crew from heat stress](#).

As certified physician assistant Brittany Kerr explained in [Agricultural Aviation](#) magazine, heat-related illnesses are most common from May to September, reaching their peak in July. These illnesses include sunburn, heat cramps, heat exhaustion and the most severe, heat stroke. The most common risk factors for developing a heat-related illness include strenuous physical activity in high heat and humidity, lack of acclimation, poor physical fitness, obesity, dehydration and carrying a large external load (such as clothing, equipment and protective gear).

One of the first signs of a heat-related illness is muscle pain or spasms in the legs, abdomen and arms. It can be easy to mistake those leg cramps as a natural part of flying and working rudder pedals all day. As these heat cramps progress, you can develop more severe symptoms such as nausea, vomiting, heavy sweating, tiredness, headache or dizziness. Taking a break to spend some time in a cool place and rehydrating with water or an electrolyte-rich drink (i.e., Gatorade, Powerade) are vital to helping your body recover. Electrolytes are a key factor here, as they provide sodium and other elements your body's muscle cells need to function properly. Relaxing, stretching and massaging the affected muscle are all excellent strategies for alleviating discomfort.

The most serious stage of heat illness is heat stroke. When your body reaches this point, your internal temperature is as high as 104 degrees or above. The body loses its ability to cool down, and the temperature continues to rise. The skin will be red and hot. Your pulse will be fast and strong, almost as if it's pounding out of your body. Nausea, confusion and even unconsciousness can develop. At this point, you need to **SEEK MEDICAL ATTENTION IMMEDIATELY!** In the most severe cases, this can lead to permanent disability or death.

In all of the above scenarios, hydration is a critical factor in maintaining wellness and ensuring you're in prime operating condition. The body is made up of 60% water. When dehydrated, you can lose 1 to 2% of that volume rapidly. That doesn't seem like a lot, but to the mix in your body, that sort of change can cause increased stress, agitation and memory issues. Body water loss means you've also lost electrolytes. Aside from dry mouth and dry skin, you can also experience low urine output, rapid breathing and even chest discomfort—all related to the electrolytes you are lacking from low water volume. It's recommended that men drink 15.5 cups of water per day and women 11.5 cups per day—but this need increases in times of water loss, including heat exposure. For every degree your body temperature goes over 98.6 degrees, you should add at least a half cup.

Aerial applicators take great care to make sure that their aircraft, pumps and other equipment are in working order. Paying attention to your physical health is also imperative, especially as you push yourself hard during these busy summer months.

OSHA-NIOSH Heat Safety Tool App

The **OSHA-NIOSH Heat Safety Tool** is a free app that may be worth getting. It has a real-time heat index and hourly forecasts specific to your location. It also provides occupational safety and health recommendations from OSHA and the National Institute for Occupational Safety and Health.

The OSHA-NIOSH Heat Safety Tool features:

- A visual indicator of the current heat index and associated risk levels specific to your current geographical location.
- Precautionary recommendations specific to heat index-associated risk levels.
- An interactive, hourly forecast of heat index values, risk levels and recommendations for planning outdoor work activities.
- Location, temperature and humidity controls, which you can edit to calculate for different conditions.
- Signs and symptoms and first aid guidance for heat-related illnesses.

Apply for C-PAASS 2023—Certified-Professional Aerial Applicator Safety Steward

If you've recently participated in a 2022 and/or 2023 Operation S.A.F.E. Fly-In and you're receiving this eNewsletter because you are an NAAA member, you have completed two of four requirements to apply for C-PAASS certification for 2023.

Apply for **C-PAASS certification** today, which 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 S.A.F.E. 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 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.

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 jointly launched the Certified-Professional Aerial Applicator Safety Steward (C-PAASS) program earlier this year 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.

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.

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!

Sponsorship sales are open for the **2023 Ag Aviation Expo** in Palm Springs Dec. 4-7. 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.

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](#).