July 13, 2023

NAAA eNewsletter

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 Wednesday. 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. Funeral arrangements were not available as of press time.

In lieu of flowers, the family is requesting donations to the PAASS Program or your local blood bank in Grant's name.

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

Last weekend, 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.

Ag Aviation Expo Exhibitor Booth Sales Begin Today at 12 p.m. ET

Booth Sales Open Today at 12 p.m. ET/11 a.m. CT for 10x10 and 10x20 space: All current Allied members were sent an email on Tuesday with their booth purchase password. Visit the **Exhibitor webpage** to purchase your booth space. If you didn't receive the email or have questions, please contact **Lindsay Barber** ASAP.

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.

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 all details on the **exhibitor webpage**, such as pricing, floor plan and exhibitor services kit. 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 Aug. 1.
- **Exhibitor Booth Sales:** Booth Sales Open Today at 12 p.m. ET / 11 a.m. CT
- **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.

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're already operating 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.

FAA Streamlines UAS Part 137 Certification Process

On June 13, the Federal Aviation Administration (FAA) issued **Notice 8900.659**, directing its staff with updated guidance on the Part 137 certification process for UAS. The FAA justifies these changes by asserting that uncrewed aircraft system (UAS) Part 137 operations present a lower risk than other certificated operations.

As stated by the agency:

> We've seen a significant increase in agricultural aircraft operator certificate applicants seeking to use Unmanned Aircraft Systems (UAS) under 14 CFR Part 137. Our data shows that UAS not only have significant commercial and agricultural value, but they also operate in a lower risk category when compared to crewed aircraft; they have no onboard pilot, carry a much smaller payload and 99 percent of the UA carry no flammable fuel.
>
> Since the first agricultural UAS certificate was issued in 2015, there have been no known accidents or injuries among the 178 certificated operators. Given the relatively low risk of agricultural UAS operations and restrictions written into the required exemption, we've determined that streamlining the Part 137 UAS certification process will not adversely affect safety.

The FAA is moving forward with the following changes:

Part 137 UAS Certification Process

1. Uncrewed Operators (UO) now apply for a Part 137 certificate via the central UAS Operations Office (137UOO) instead of their local Flight Standards District Office (FSDO). They would still need to have applied for and been granted the necessary exemptions from 14 CFR before applying. The new office may be contacted at: **UAS137Certificates@faa.gov**.
2. The FAA determined UO are lower risk, so § 137.19(e) Knowledge and Skills Tests can now be self-administered. The FAA can request documentation of satisfactory completion.
3. No Letter of Authorization (LOA) issued for UO; Operating Certificate issued by 137UOO.
4. Splitting of Flight Safety Offices:
    a. 137UOO is responsible for uncrewed-only operations.
    b. Local FSDO is responsible for mixed operations (having both crewed and uncrewed).
    c. 137UOO will specifically coordinate with FSDOs to conduct field activities on an as-needed basis (inspections, investigations, etc.).
5. No regular surveillance will be required by the FAA for uncrewed-only operations.

Documentation Requirements

1. Newly required operations manual for UO (includes safety, flight duties/responsibilities, accident reporting, HAZMAT, etc.).
2. Newly required self-created/self-administered/self-documented training program for UO.
3. (1) and (2) are not submitted to or approved by the FAA but must be made available by request.

Approved Aircraft

1. **49 USC § 44807 previously approved UA** are all approved for Part 137 use.
2. All <55 lb. UA are approved for Part 137 use.

Alignment of Policy

1. Uncrewed-only operators need only a Remote Pilot Certificate (not a commercial pilot certificate).
2. Third-class medical certificate required (not a second-class medical certificate).

NAAA is concerned about the competitive advantage that this gives to new uncrewed Part 137 applicants over those who must follow the standard process with the FSDO. The association is also concerned that the 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. When the skies become more crowded with UAS operations, FAA safety coordination becomes more and more important.

The new process will likely relieve backed-up FSDOs of their UAS burden, and hopefully allow them to better serve crewed and mixed crewed/uncrewed operators. In addition, NAAA does appreciate the FAA's assertion that at least a third-class medical certificate be required. NAAA has held firm on this requirement for all proposed commercial operations of UAS, commenting as such on countless UAS exemption petitions.

Within 12 months, the FAA will incorporate these changes into **Advisory Circular (AC) 137-1**. Current Part 137 UAS applicants on the National Applicant List will be automatically transferred to the 137UOO, and applicants in progress will be given the option to continue working the certification with the FSDO or transfer to the new streamlined process. It is also worthy to note that the scope of these changes does not extend to any specialty use cases, such as beyond visual line-of-sight (BVLOS) or swarm operations. Any proposed specialty use cases would still need to be initiated through a Letter of Intent (LOI) with the jurisdictional FSDO.

NAAA continues to meet with industry stakeholders to better evaluate the impacts of these changes to its member operators and is actively formulating a suitable response to the FAA regarding this notice.

House and Senate Transportation Committees Introduce and Work to Move FAA Reauthorization Bills: A Look at the Good, Bad and Ugly for Ag Aviation

Last month the House and Senate's respective transportation committees unveiled their proposed FAA reauthorization bills and set an ambitious schedule to mark up those bills through their panels and move them onto their floors for debate. NAAA had a weekend to digest 1,200 pages of legislative text and respond to the committees with its feedback about the bills. NAAA engaged in discussions with federal legislators and their staff well before these drafts' release to ensure the bills included low-altitude aviation safety provisions for manned aircraft from unmarked and unlogged towers and drone avoidance requirements. The House provisions included good language on the tower marking and logging front, but the Senate's language in this area was bad and downright ugly regarding drone avoidance requirements from manned aircraft.

The Good: The House bill includes Section 228, titled "TOWER MARKING NOTICE OF PROPOSED RULEMAKING," which directs the FAA to implement section 2110 of the FAA Extension, Safety, and Security Act of 2016 (49 U.S.C. 44718 note). This would supersede section 576 of the FAA Reauthorization Act of 2018 (Public Law 115–254, 132 Stat. 3391) that gave communication towers the option of either marking or logging towers between 50 and 200 feet in height. If this House provision is enacted, it would require all towers 50 to 200 feet in height and 10 feet in diameter in rural areas to be marked and logged into an FAA database. Furthermore, the House would require the regulation to be promulgated within a year of enactment, and if not, then the FAA Administrator shall:

> submit to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate an annual report on the status of such rulemaking, including—(1) the reasons that the Administrator has failed to issue the rulemaking; and (2) a list of fatal aircraft accidents associated with unmarked towers that have occurred over the 5 years previous to the date of submission of the report.

The Bad: Although NAAA advocated the Senate to reverse course from its 2018 amendment weakening communication tower requirements to only mark or log their locations, but not both—even after the NTSB stated that all towers in the 50- to 200-foot range should meet the same marking and logging requirements—the legislative body didn't budge. It did, however, urge the FAA to promulgate the 2018 rule to mark towers or report why it did not, similar to the House language:

> Not later than 180 days after the date of enactment of this section, the Administrator shall provide a briefing to the appropriate committees of Congress on implementation of the requirements of section 2110 of the FAA Extension, Safety, and Security Act of 2016 (49 U.S.C. 44718 note) (as amended by section 576 of the FAA Reauthorization Act of 2018 (Public Law 115–254, 132 Stat. 3391)). (b) REQUIREMENTS.—The briefing required by subsection (a) shall include the following: (1) A description of, and timeframe for, the Administrator's development of requirements to file notice of construction of meteorological evaluation towers and other renewable energy projects under the notice of proposed rulemaking RIN 2120-AK77. (2) A description of the FAA's use of existing publicly accessible databases to collect and make available information about certain structures that are required to, or voluntarily, file notice with the FAA. (3) For the period beginning on July 15, 2016, and ending on the date the briefing required by subsection (a) is provided, a list of aircraft accidents during such period that are associated with covered towers (as such term is defined in section 2110(b)(1)(A) of the FAA Extension, Safety, and Security Act of 2016 (49 U.S.C. 44718 note) that are not marked in accordance with applicable guidance in the advisory circular of the FAA issued December 4, 2015 (AC 70/7460-IL).

The Ugly: In an effort to prevent collisions between drones and manned aircraft, NAAA is advocating to Congress that statutory language be included in federal aviation law requiring drones to always give the right of way to manned aircraft. Real concern arose last year when an FAA Aviation Rulemaking Committee (ARC) on drones operating beyond visual line of sight (BVLOS) recommended in certain low-altitude situations that drones not be required to be equipped with ADS-B In sensing technology or give the right of way to manned aircraft. The ARC was stacked with drone interests and included a minority report from general aviation interests opposing the manned aviation safety-weakening recommendations. Unfortunately, the Senate bill requires the FAA, within six months of enactment, to issue a proposed rule promulgating the BVLOS ARC's recommendations to be finalized in two years. The Senate measure includes not requiring a type of production certificate for drones weighing up to 1,320 pounds and flying at speeds up to 100 mph.
The House's FAA reauthorization language pertaining to drones is less onerous. It amends Section 44807 of Title 49, United States Code, stating that nothing in this subsection shall be construed to give an unmanned aircraft operating pursuant to this section the right of way over a manned aircraft. The House also requires the FAA to issue a proposed rule for comment within four months of enactment of BVLOS drones operating primarily at or below 400 feet above ground level, to develop airworthiness standards for such unmanned aircraft, and develop a rule for the ability for unmanned aircraft to be operated for agricultural purposes. The House bill also requires the Comptroller General of the United States (General Accountability Office) to study technologies and methods that may be used by operators of unmanned aircraft systems to detect and avoid manned aircraft that may lawfully operate below 500 feet above ground level and that are:

1. not equipped with a transponder or automatic dependent surveillance-broadcast out equipment; or
2. otherwise not electronically conspicuous.

b. CONSULTATION.—In conducting the study required under subsection (a), the Comptroller General shall consult with—
   1. representatives from—
      A. unmanned aircraft systems manufacturers and operators;
      B. general aviation operators;
      C. aerial applicators; and
      D. helicopter operators, including State and local governments; and
   2. any other person the Comptroller General determines appropriate.

c. REPORT.—Not later than 1 year after the date of the enactment of this Act, the Comptroller General shall submit to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a report describing the results of such study.

Moving Forward: Before the House marked up its FAA reauthorization bill last week, NAAA joined its general aviation colleagues in a **letter to Congressmen Sam Graves (R-Mo.) and Rick Larsen (D-Wash.)**, the chairman and ranking member of the House

Transportation & Infrastructure Committee, in support of their bill's provisions that are positive to general aviation, including increasing Airport Improvement Program funding to help improve infrastructure at GA airports; reinforcing the FAA's partnership in the Eliminate Aviation Gasoline Lead Emissions (EAGLE) Initiative, including ensuring the continued availability of aviation gasoline; investing in the next generation of aviators, mechanics, manufacturers and other aviation professionals through the establishment of the National Center for the Advancement of Aerospace; and prohibiting FAA investigations into any regulated person or entity from remaining open for more than two years without a determination being made.
The House Transportation Committee unanimously approved its FAA bill, H.R. 3935, on June 14. Graves, the committee's chair, said he is aiming for a full House vote on the FAA bill in late July. The Senate is a different matter.

Senate Aviation Subcommittee Chair Tammy Duckworth (D-Ill.) hasn't been able to move the Senate's bill through committee and onto the floor due to controversy over a commercial airline pilot training amendment and slots at Reagan National Airport (DCA). In the meantime, NAAA is continuing to meet with committee staff and congressional representatives to amend the bills to ensure all towers fitting the 50-to 200-foot descriptors must be both marked and logged, and that adequate safety provisions are included in the FAA legislation to prevent drones from colliding with manned aircraft.

NAAA Defends Safety of Ag Aviators Against Proposed UAS BVLOS Operations

Under pressure from deep-pocketed corporations seeking regulatory relief to operate uncrewed aircraft systems (UAS) beyond visual line-of-sight (BVLOS), the Federal Aviation Administration (FAA) is pushing to expand BVLOS operations.

In what appears to be a tactical move, on May 24, the FAA published four precedence-setting BVLOS Exemption Petitions alongside a broader proposed rule for public comment. If adopted, some of the most troubling recommendations from the UAS BVLOS Aviation Rulemaking Committee (ARC) report released last year may become a reality. Of specific concern to ag aviators, the rule would give UAS the right of way over crewed aircraft in so-called "shielded" areas. In addition, the FAA steamrolled NAAA and nine other crewed aviation groups by **denying** a joint request in a **letter seeking additional time to comment** on these five paradigm-shifting proposals (the FAA only allowed 20 days for comment).

The proposed shielded areas, wherein UAS would now have the right of way over crewed aircraft, are defined as "a volume of airspace that includes 100' above the vertical extent of an obstacle or critical infrastructure and is within 100 feet of the lateral extent of the same obstacle or critical infrastructure." The ARC contends that these shielded operations should be permitted based on "the limited likelihood of crewed aircraft operations in [these] areas." Agricultural aviators were clearly not considered in this assessment, as this would place UAS squarely into what are already the most statistically dangerous areas in and around an applications site, such as around electric infrastructure.

The FAA, it seems, plans to lean heavily on the required use of Detect & Avoid (DAA) systems to mitigate the risk of the proposed UAS BVLOS operations. Each of the four exemption petitions submitted planned to employ radically different DAA techniques, but none provided public evidence of their efficacy. The FAA is seeking to employ a combination of industry standards to approve or disapprove DAA systems in exemption petitions; however, it is unclear whether the agency will actually verify a petitioner's claimed DAA performance. Moreover, NAAA is unaware of any DAA system that has been tested against the unique nature of aerial applications.

NAAA commented in opposition to all four exemption petitions as well as the proposed rule on BVLOS expansion and shielded operations. We will continue to beat the drum of the necessity to have UAS certified as airworthy and that UAS must always give the right of way to crewed aircraft. In addition, we will assert that DAA systems must be certified by the FAA and be performant against aerial application operations. As the momentum behind UAS integration into the national airspace pushes regulation forward, the safety of the humans working in that airspace cannot be set aside.

You can view the above-mentioned dockets (and NAAA comments) using the links below:

- **FAA-2023-1256 (Comments)**
- **FAA-2019-0628 (Comments)**
- **FAA-2020-0499 (Comments)**
- **FAA-2022-0124 (Comments)**
- **FAA-2022-0921 (Comments)**

2024 House Ag Appropriations Bill Again Reports Support of Aerial Application Technology Research

The U.S. House of Representatives' Appropriations Committee has advanced a bill to fund the USDA through fiscal year 2024, and once again, included in the **committee's report** is language supportive of aerial application technology research. The supportive language in the committee's report is as follows:

> Aerial Application.—The Committee recognizes the importance of aerial application to control crop pests and diseases and to fertilize and seed crops and forests. Aerial application is useful not only to ensure overall food safety and food security, but also to promote public health through improved mosquito control and public health application techniques. The Committee urges ARS to prioritize research focused on optimizing aerial spray technologies for on-target deposition and drift mitigation and to work cooperatively with the Environmental Protection Agency to update their pesticide review methodology.

The fiscal year 2024 bill provides $17.838 billion of funding, a 30% reduction from the fiscal year 2023 bill; however, it includes $8 billion in unused funding rescissions from the Inflation Reduction Act, Covid-19 funding and other programs, which would provide a total of $25.3 billion to the agencies. The fiscal year 2023 bill was $25.48 billion. Language in the bill also restricts Agriculture Secretary Tom Vilsack's ability to use money from the Commodity Credit Corporation, a source of funding he has tapped to launch the agency's flagship climate program. The Senate is slated to mark up its Ag Appropriations bill today.

Since 2002 through the current federal government fiscal year of 2023, NAAA has been successful in securing an additional $12,512,500 for the Aerial Application Technology Research Unit (AATRU) within USDA's Agricultural Research Service (ARS). In 2011 Congress enacted a ban on earmarking money for specific projects; however, NAAA was able to keep aerial application research funding steady by having the supportive report language inserted into past appropriation bills and farm bills. NAAA is also currently working on inserting language supportive of aerial application research in the 2023 Farm Bill that is currently being crafted by the House and Senate Agriculture Committees.

NAAA will continue to work for adequate USDA-ARS aerial application technology research funding so long as the research is equitably distributed toward the type of aerial applications conducted most. In addition, so long as the research is being focused on further integrating georeferencing variable rate flow control incorporating meteorologic and digital mapping, and aircraft attitude technologies on board the aircraft to automate the spray systems further, resulting in mitigating drift, conserving fuel and making aerial applications more efficacious, while allowing the pilot to focus on flying the aircraft more safely by allowing that pilot to observe obstacles outside the cockpit. Favorable committee report language sends a strong message to the USDA to continue to sustain appropriate funding for aerial application research. This message couldn't be more important as the USDA-ARS has had its budget cut over the past few years, resulting in the shutdown of multiple research units.

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. Secondarily, 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**.