

NAAA eNewsletter

NAAA Firm on Safety in the FAA's Heedless March Toward UAS BVLOS Operations

On Monday, NAAA submitted comments to the Federal Aviation Administration (FAA) regarding a recently published petition by [Wing Aviation LLC](#) (Wing) to amend its [existing exemption](#) to conduct 14 CFR Part 135 package delivery operations using an uncrewed aircraft system (UAS). Wing is a subsidiary of Alphabet, Inc., the parent company of Google. Wing is focused on expanding global drone delivery networks to bring residential drone delivery to major metro areas. Wing received their [initial exemption](#) in 2019, for which [NAAA commented](#) in opposition (*also see our [eNews archive](#)*). Wing has since been granted several amendments to their exemption. Their [most recent petition](#) details proposed use of ADS-B for primary detect and avoid (DAA) during beyond visual line-of-sight (BVLOS) operations without visual observers (VOs).

[NAAA's comments](#) provided a detailed and data-driven overview of the aerial application industry, its significant impact on the agricultural economy and the unique challenges faced by its operators. More specifically, NAAA outlined the mid-air collision risk imposed by UAS operating BVLOS without vetted and FAA-certified DAA technology. Wing's proposal to utilize ADS-B as their primary DAA system would necessarily allow them to operate BVLOS without a primary means to detect and avoid any non-ADS-B-Out aircraft. While NAAA continues to advocate for DAA technology equipage for all UAS, it must be proven (and FAA-certified) effective against cooperative (ADS-B Out) and noncooperative (Non-ADS-B Out) aircraft.

In their petition, Wing clarified that they were not seeking any relief to [14 CFR §91.113 Right-of-way rules](#). However, it is the opinion of NAAA that their proposed removal of VOs for BVLOS operations, without additional demonstrable risk mitigations, would impede their ability to maintain vigilance, in accordance with §91.113(b), to see and avoid other aircraft. For this reason and those outlined above, NAAA urged FAA to prioritize safety and not grant the petitioned amendments.

View NAAA's [UAS Policy Page](#) to learn more.

NAAA Comments on EPA's Endangered Species Herbicide Strategy

As part of their current spate of efforts to ensure pesticide registrations comply with the endangered species act (ESA), in July of this year EPA released their draft herbicide strategy (HS). The HS follows on the ESA workplan, the [ESA work plan update](#), and the [vulnerable species pilot project \(VSPP\)](#). While the VSPP seeks to provide a very targeted approach to protecting 27 particularly sensitive species, the HS seeks to protect over 900 ESA listed species by applying mitigations over a wide swath of agricultural land.

The HS still utilizes pesticide use limitation areas (PULA) and bulletins from EPA's Bulletins Live Two! (BLT) website to designate areas where ESA listed species and critical habitat are located and focus mitigations in those areas. However, instead of creating a separate PULA for each species, EPA lumped species impacted by herbicides into one of four large PULAs: Dicot plants (broadleaf plants) in terrestrial habitat, monocot plants (grasses) in terrestrial habitat, dicot plants in aquatic habitat, and monocot plants in aquatic habitat. These PULAs are currently based on the range of the species instead of known locations, which means they would likely protect areas larger than necessary.

In addition to the PULAs, the HS plans to protect generalist species – ESA listed animal species that use specific habitat types – by putting certain mitigations on the main label. This would result in mitigations required for any application sites near any potential listed species habitat. The broadly defined PULAs and the mitigations to protect generalist species on the main label would mean a marked increase in the cropland affected by ESA mitigations.

The good news for agricultural aviators is that NAAA's efforts to educate EPA about how to properly estimate drift from modern aerial applications is paying off in a big way. Neither the HS nor the 12 case studies used to develop it propose to ban aerial applications near listed species, even for herbicides such as 2,4-D and dicamba. As with the VSPP, EPA's primary drift mitigations strategy for both aerial and ground applications is the use of wind-directional buffers. The proposed buffer distances vary depending on herbicide, use rate, and droplet size. In addition, EPA once again acknowledged that they are considering updating the buffer distances by re-estimating aerial drift using the Tier 3 model in AgDRIFT as proposed by NAAA repeatedly over the last several years.

NAAA [submitted comments](#) to the EPA on the proposed HS. We supported the use of wind-directional buffers and re-assessing aerial drift using the Tier 3 model in AgDRIFT. NAAA strongly opposed the proposal to require ESA mitigations over a broad scope of cropland, and instead suggested EPA work closely with the Fish and Wildlife Service and other entities to better define the exact locations of listed species and critical habitat. NAAA also issued concerns about commercial applicators being a responsible party for farmers' requirements that vegetative strips and other surface water runoff and soil erosion mitigations be in place on cropland subject to these ESA requirements. The current plan is for EPA to release the final HS in early 2024. NAAA will continue to monitor the process and offer guidance to EPA on points related to aerial applications. EPA is also working on a draft insecticide, rodenticide, and fungicide policy to protect endangered species that will be available for public comment.

GPS Disrupter Ligado Networks is Close to Bankruptcy, Again

One of the many issues NAAA has been advocating on behalf of the aerial application industry is to prevent Ligado Networks' attempt to operate a ground-based 5G network in the L-band radio spectrum, the band adjacent to the one used for GPS. Ligado's proposed network would interfere with GPS and other satellite-based technology. Since 2020 NAAA has been part of a large coalition of aviation and other industries that rely on GPS and are fighting to overturn the FCC's approval of Ligado's application to operate in this spectrum.

Since the FCC's approval, things have not gone well for Ligado thanks to NAAA and the coalition's efforts. The 2021 National Defense Authorization Act mandated several provisions meant to prevent from Ligado from moving forward, including requiring the Department of Defense (DoD) to submit an estimate to Congress of the full range of damages caused by Ligado's planned network and prohibiting DoD from contracting with any entity that engages in terrestrial service in the L-band. Earlier this year, Canada rejected Ligado Network's petition to operate in the L-band.

Despite having FCC's permission, these and other hurdles have prevented Ligado from deploying their network. Ligado will have to make a \$4 billion debt payment on November 1, 2023. As a result of years of failing to launch their network, Ligado recently decided to sue the U.S. government, claiming the DoD and Commerce Department orchestrated a public disinformation campaign that prevented Ligado from commercializing their proposed network and thus blocked their business plans.

Because they will likely be unable to pay off or refinance the \$4 billion coming due, Ligado is rumored to be preparing to file for chapter 11 bankruptcy within a few weeks. Reports from last week suggest Ligado may be trying to work with its creditors to finance its lawsuit against the federal government. Ligado may also be trying to reorganize their business around their mobile satellite technology, which is completely separate from their L-band radio spectrum plans.

If this all sounds familiar, it's because it's happened before. Ligado was formerly called LightSquared, who filed for bankruptcy in 2012 after the government denied them permission to operate a similar network. They emerged from bankruptcy in 2015 with new ownership and a new name but with the same disruptive plan to GPS. NAAA will continue to monitor and influence this issue.

Fall 2023 Issue of Agricultural Aviation Now Online!

The Fall 2023 issue of *Agricultural Aviation* is available [online](#) and in the *Agricultural Aviation* Magazine App. Stories include details on the the upcoming Ag Aviation Expo, the use of night vision goggles in aerial application, results of the industry activity survey, an overview of the 2023-2024 PAASS Program, details on the 2023 NAAA Ag Aviation Expo, and much more!

Featured content in the Fall 2023 issue includes:

1. **A Night and Day Difference**
Night Vision Goggles in Ag Aviation
2. **Night Vision Goggles Through the Lens of Insurance**
NVGs are positive in the eyes of the insurance industry
3. **Sky High Summit: Elevate your Aerial Application Career & Business at the Ag Aviation Expo in Palm Springs, CA this December**
Join NAAA at the 2023 Ag Aviation Expo in Palm Springs, California, Dec. 4-7
4. **Industry Activity Survey Shows a Solid Year for Many Operators**
NAAA's 12th annual industry economic survey indicates 2023 was a steady year for ag aviation
5. **Don't miss the 2023-2024 PAASS Program and Don't Make it Your Last PAASS**
Wire avoidance, stall spins, overly aggressive flying and more safety topics covered in PAASS 2023-2024
6. **Targeting Success: The Power of Precision and Accuracy in Aerial Application**
Ag Aviation has a unique opportunity to harness the power of precision ag

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

Get the Free Agricultural Aviation App

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Ag Aviation Expo Attendee Pre-Reg Closes Nov. 3; Room Block Closes Nov. 9

NAAA is excited to host our annual convention in Palm Springs, CA Dec. 4-7. If you're attending, we urge you to save \$75.00 and [pre-register by Nov. 3](#). It will also help us reduce lines at the registration desk and have accurate food/beverage counts, especially if you're attending the [Kickoff Breakfast](#) to hear from Burt Rutan, Aerospace entrepreneur and Virgin Galactic spacecraft designer.

We still have plenty of hotel rooms available at the Hilton and Hyatt in the [NAAA room block](#) for those who haven't booked a room or are still undecided. The deadline to book your hotel room in the NAAA block is Nov. 9.

In addition to attendee registration, please also register for the following events:

1. Flying in the Wire and Obstruction Environment Course, which is acclaimed by professional airplane and helicopter operators world-wide. It gives low-altitude aviators the essential skills needed to safely operate an aircraft in wire and obstruction environments. This course is for both aircraft and helicopter pilots. Learn how to identify signs of wires and why ag aviators hit wires they already knew were there. This course may very well save your life—don't miss it. \$150 per person; 8-hour course; [register online](#).
2. Pitch Perfect for PAASS is a karaoke fundraising event for NAAREF's PAASS program. You don't need to sing to participate! You can also participate by registering to attend because your registration fee is a donation to NAAREF/PAASS. Registration includes two drink tickets! This is a terrific social event with the added benefit of raising money for NAAREF and PAASS and the lifesaving and environmental stewardship benefits those entities achieve. Join us Sunday, Dec. 3 at 7 p.m. \$110 donation to NAAREF per person; [register online](#).
3. Support Committee's Monday Cooking Demonstration & Wine Pairing with the chef of the Palm Springs Convention Center. Event RSVP is required to [Cathy Ellett](#).

We look forward to seeing you in December for networking, education, [CEUs](#) and a really good time!

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
- **General Session Speakers:** [Ed Messina & Terry Kippley & a Turn Smart Safety Session](#)
- **Schedule of Events:** See the current, tentative schedule [here](#).
- **Hotel:** [Details here](#).
- **Attendee Registration:** Now Open [here](#).
- **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.
- **Auction Donations:** Thank you to Pratt & Whitney Canada for donating a PT6-34AG engine and Air Tractor for donating a custom Can Am to this year's NAAA Live Auction. In addition to their generous engine donation, Pratt & Whitney Canada will also have an additional surprise donation at the NAAA Live Auction to celebrate their 60th anniversary of the PT6 family of engines and for reaching nearly 1 billion hours flown since the company was founded in 1928. Please consider [making a donation](#) for the Live and Silent Auction. Support the aerial application industry by donating an item today. Email [Lauren](#) with your donation details.

Apply for C-PAASS 2023 by December 11

Join the growing number of ag pilots who are committed to enhancing safety, environmental stewardship, and application efficacy in the agricultural aviation industry.

The deadline to become 2023 **C-PAASS certified** is Dec. 11; count yourself among those committed to being the best of the best in the industry. C-PAASS 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.

Beware of Fraudulent Email with Ag Aviation Expo Name & Logo

NAAA received notification that scammers have sent an email to several members offering attendee lists to the Ag Aviation Expo. **THIS EMAIL IS SPAM AND NOT AFFILIATED WITH NAAA; PLEASE DELETE IT.** NAAA does not email members to offer lists of any kind.

If you are unsure if an email is legitimately from NAAA, please feel free to email information@agaviation.org for clarification.

Any message from NAAA will come directly from information@agaviation.org, naaaexpo@agaviation.org or a staff member's email address.

There are several reports of entities trying to scam people by having them give money toward fraudulent efforts. Do not fall victim to one of these scams.

Support NAAA by Renewing Your Membership for 2024

Thank you for your support of NAAA as a 2023 member. We request your continued support by [renewing your NAAA membership](#) for 2024. While you have been busy aiding farmers to produce a safe, affordable, and abundant supply of food, fiber, and bioenergy, NAAA has been busy making sure low altitude airspace is safe for your aerial application business to operate, as well as ensuring that you have the pesticide products you need to do your job.

Several of NAAA's accomplishments this year, on your behalf, include:

- NAAA launched **C-PAASS**, for aerial applicators that take additional steps to augment their professionalism through education and testing who may be recognized and rewarded by their insurance providers, pesticide manufacturers, and customers.
- Since 2017, NAAA has submitted a total of 267 comments to the EPA to keep aerial applications on pesticide labels with great success enabling you to keep a deep inventory of pesticide tools without unnecessary and burdensome restrictions.
- Due to NAAA's advocacy work, the House passed FAA Reauthorization bill directing FAA to broaden protections ensuring the safety of manned aircraft from drones operating beyond visual line of site in addition to those drones operating under Part 107 and those above 55 pounds.
- NAAA is actively advocating Congress for Farm Bill inclusion of exempting NPDES Permits for pesticide applicators and other key unnecessary, burdensome and duplicative regulatory relief provisions, in addition to continuing substantive USDA research for developing safer, more efficient aerial application technologies.
- NAAA's "Aerial Application: Above All Forms of Crop Care" ad campaign and accompanying [web search tool](#) identifying member businesses is widely circulated to hundreds of thousands of potential aerial application users.

You will also continue to receive ongoing benefits, such as legal consultation on federal aviation laws, discounts for attending or exhibiting at the Ag Aviation Expo, staying connected to members through the print and online NAAA Membership Directory and receiving Association publications and eNewsletters, social media briefings and substantive web content at AgAviation.org.

Please make it a priority to [renew your NAAA membership](#)—the payoff far exceeds what you will spend in dues in the form of effective advocacy that reduces regulation and taxes affecting your aerial application business and trade association membership dues are tax deductible.

Many Auction Items Up for Bid at NAAA Live Auction; Letter of Credit Required for PT6A-34AG Engine

Thank you to the many companies that support ag pilots and their operations, as well as the industry, through donating items for the [Live and Silent Auctions](#) at the NAAA Ag Aviation Expo. The money raised from these items supports NAAA programs. To donate an item to

the live or silent auction contact, [Lauren Henretty](#).

Join us for the Live Auction & Reception on Tuesday, Dec. 5, at 5:30 p.m. at the Palm Springs Convention Center. All are welcome to enjoy the auction, and food and beverages sponsored by Syngenta. The Silent Auction bidding will be open Tuesday and Wednesday during NAAA Trade Show hours; there is no electronic bidding this year.

Pratt & Whitney Canada Engine Details

Thank you to Pratt & Whitney Canada for its generous donation of a brand-new PT6A-34AG turboprop engine. The engine is valued at \$658,000. The engine build specification is 1334, used on the Air Tractor, Thrush and Turbine Conversions STC. The winning bidder is required to pay \$20,000 down on-site, and the remainder of payment is due within 30 days. Please provide a letter of credit from a financial institution to [Deana Kissinger](#).

In addition to their generous engine donation, Pratt & Whitney will also have an additional surprise donation at the NAAA Live Auction to celebrate their 60th anniversary of the PT6 family of engines and for reaching nearly 1 billion hours flown since the company was founded in 1928.

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Beware of Fraudulent Emails & Calls with Ag Aviation Expo Name

NAAA received notification that scammers using the company name Convention Housing Experts LLC have sent an email to several Allied members offering hotel rooms. NAAA also received notification that a different company has called some of our Allied members telling them to book their hotel room with them. These communications are spam and not affiliated with NAAA; please delete it and do not respond to their calls.

Please only book your Ag Aviation Expo hotel room using information directly from NAAA. You can find our hotel room block details [here](#).

If you are unsure if an email is legitimately from NAAA, please feel free to email information@agaviation.org for clarification. Any message from NAAA will come directly from a staff member's email address, information@agaviation.org, or naaexpo@agaviation.org.

There are several reports of entities trying to scam people by having them give money toward fraudulent efforts. Do not fall victim to one of these scams.

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