October 6, 2022

NAAA eNewsletter

CapstanAG Gets STC for SwathPRO Aerial Spray System

CapstanAG's SwathPRO aerial spray system has received its STC from the Federal Aviation Administration, the company announced Monday. It is now available for sale as a factory-installed option on new Air Tractor aircraft and retrofit installation on customer airplanes through the Air Tractor worldwide dealer network.

"The SwathPRO aerial spray system will revolutionize the way ag pilots accomplish their work. Since its debut at the 2018 National Agricultural Aviation Association convention, there has been a tremendous amount of interest in the system. We're excited to now offer it exclusively through an industry leader like Air Tractor," Jeff Hemeyer, CapstanAG's national account sales manager, said.

The patented individually optimized nozzle spray system has an electronic solenoid at each nozzle station that controls both flow and pressure to adjust for pattern disturbances during flight. "Utilizing the CapView in-cockpit controller, the pilot can push a button to select from as many as seven different nozzle pattern profiles to adjust deposition characteristics as conditions change while spraying a field," reports Hemeyer. "All of this is done 'on the fly.' There is no need to land and adjust spray nozzle settings."

Each SwathPRO nozzle station controls both flow and pressure.

Air Tractor President Jim Hirsch says aerial applicators have a new way to streamline their operational efficiency and mitigate drift. "There are numerous benefits to the SwathPRO aerial spray system. It will save pilots time and boost their productivity."

An Air Tractor airplane equipped with the SwathPRO spray boom system will be displayed in December at Air Tractor's booth during the 2022 NAAA Ag Aviation Expo trade show. The SwathPRO team will also be on hand to explain how the aerial liquid spraying system helps ag pilots mitigate drift, increase productivity and precisely apply crop protection products with better accuracy. "This will be a great opportunity to learn and ask questions," Hirsch said.

"Multiple Air Tractor test aircraft equipped with SwathPRO aerial spray systems have collectively treated more than 2 million acres here in the United States during the past four seasons," Hemeyer reports. "Feedback from those pilots and ag operators who've been testing our equipment has been quite positive, informative and helpful."

For more information about the SwathPRO system, visit **airtractor.com/swathPRO** or contact an **Air Tractor dealer**.

NAAA Supports Aerial Use of Atrazine and Other Vital Pesticides as EPA Continues to Reverse Reregistration Decisions

This week NAAA commented on the EPA's proposed revisions to its 2020 final registration review decision for atrazine. In the 2020 decision, the EPA set the aquatic level of concern or LOC (the level at which atrazine would be predicted to have a potentially harmful effect on aquatic organisms) at 15 parts per billion (ppb). In response to a lawsuit from environmental groups, the EPA issued proposed revisions seeking to lower the LOC to 3.4 ppb. This lower LOC is not supported by scientific research and dramatically increases the acreage where atrazine use would be expected to cause harm to aquatic sites. The proposed revisions also include several mitigations the EPA claims are now necessary in order to deal with the much higher risk it now claims atrazine represents.

NAAA successfully fought to retain aerial application for atrazine in the 2020 final registration review decision, but that is now in jeopardy. The proposed revisions seek to ban aerial applications. They also seek to prohibit ground applications to saturated soils and within 48 hours of a storm event. NAAA objected to the proposed ban on aerial application and explained why the additional restrictions on application timing would increase the demand for aerial application. NAAA also pointed out soils don't have to be saturated before it becomes impossible to operate a ground rig on them and that there is no logical reason to ban aerial application of atrazine in those situations.

Unfortunately, the EPA's reversal on atrazine is only one of several recent examples where instead of fighting lawsuits from environmental groups, the agency is caving into their demands and agreeing to change or revisit registration review decisions. Paraquat was reregistered in 2021, and NAAA was successful in retaining aerial application despite the original proposed interim decision suggesting it be banned. However, in July, the EPA requested a voluntary remand of paraquat's interim registration. At this point, paraquat is still legal to apply based on the 2021 decision, but the EPA will have to go through the entire registration review process for paraquat again. NAAA fully expects a proposed ban on the aerial application of paraquat to be back on the table at some point in the process. Similar to atrazine, the decision to remand the 2021 registration review decision for paraquat was not based on science but instead on a lawsuit from environmental groups.

It doesn't stop there. As reported **last week**, the EPA is currently reviewing a petition by numerous worker and environmental activist groups demanding the EPA ban 15 organophosphates. The week before, the EPA withdrew the 2020 interim registration review decision

for glyphosate. Similar to paraquat, this doesn't mean the product is banned. At this point, it can be applied according to the labels agreed upon in the 2020 interim decision. It does mean glyphosate will have to go through the registration review process again.

These recent decisions by the EPA to throw out registration review decisions in the face of lawsuits from environmental groups are very concerning to NAAA and others involved in agriculture. It calls into question who is calling the shots on the pesticide review process and whether sound science or alarmist comments are more important in the process. All of this adds to the already mounting pressure on the EPA to meet its legal obligations to **make registration review deadlines** and adequately **protect endangered species**.

NAAA will continue to closely monitor these reversals and continue the fight to ensure aerial application of these critical ag products is an option for farmers.

NAAA Comments on Osprey Agridrone Solutions' Petition for Relief from FAA Safety Requirements

Last week NAAA submitted comments on a petition for relief from Osprey Agridrone Solutions to specific safety requirements within Federal Aviation Regulations (FARs) 14 CFR § 61, 91 and 137 to perform agricultural operations, including commercial applications with drones over 55 pounds. Since the drones are heavier than 55 pounds, they do not operate under FAR Part 107—regulations for commercial drones under that weight—and are required to request relief from the FAA to be exempt from certain parts of the FARs to operate.

NAAA's comments opposed the requests for exemptions dealing with airworthiness, safe altitudes, fuel requirements and maintenance and reiterated that the requirements for heavy drones outside of FAR Part 107 should be identical to those of manned aircraft. NAAA also commented on unsubstantiated and inaccurate claims made in a document prepared for Osprey Agridrone Solutions by UASolutions Group LLC as to the purported advantages of unmanned applications over manned applications. Since one of the risk mitigations that Osprey Agridrone Solutions is promoting is that the operations will occur *"under controlled conditions in predetermined airspace that is, 1) Limited in scope 2) Controlled as to access by mission essential personnel only,"* NAAA reminded the FAA that the national airspace (NAS) is not private, and access is not controlled by private entities. Short of temporary flight restrictions, the NAS is accessible to aircraft such as manned agricultural aircraft to properly do their jobs.

Other claims made and NAAA's response are as follows:

Osprey Agridrone Solutions' claim that its drones *"reduced exposure to chemicals for applicators"* was met with the NAAA response that there is a far greater likelihood due to the small hopper size and exponentially more times a worker will have to refill a small drone that it will result in greater exposure to chemicals for those workers. The drone will most likely be refilled at a temporary site in or near the field, where the lack of closed-contained facilities will make decontamination difficult.

Osprey Agridrone Solutions' claim that its drones' *"reduction in chemical drift compared to manned aircraft application and reduced exposure of surrounding beneficial vegetation"* was met with the NAAA response that the claims were completely unproven and that drift from drones has not been adequately studied. Moreover, there are many factors that indicate drift from a drone will be equal to or greater than from manned aircraft. Drones are light and do not have the weight necessary to bring the product down to the crop canopy. The multi-rotor design appears to send the spray in many different directions, and to get a decent spray pattern requires drones to apply at about 10 to 12 feet above the crop canopy, which is the same height as manned aircraft.

Osprey Agridrone Solutions' claim that its drones result in a *"more environmentally friendly application with reduced noise"* was met with the NAAA response that while the decibels may be lower, the time spent in the area will be substantially longer due to a drone's low productivity, causing the acoustic imprint to remain. One of the most promising developing uses for drones is hazing (harassing) blackbirds in sunflower fields to prevent depredation. Such a use would require continuous activity in the blackbird-invaded area with the constant audible whining of the drone. Unlike the claims made, drones are not environmentally benign either audibly, to the physical land or to human exposure.

Osprey Agridrone Solutions' claim that its drones result in a more *"selective use of chemicals for a safer more targeted application, and better value for the customer"* was met with the NAAA response that there is no difference in the selectivity in the use of chemicals between unmanned and manned aircraft. Manned aircraft operators are constantly looking for the best value for the customer. Manned aircraft can and do perform variable rate and selective applications when it is of value to the customer.

NAAA's comments may be viewed **here**. While the requests for relief have become routine, NAAA continues to comment against parts of the requests it believes make the airspace less safe for manned aircraft and the general public.

AgTech Firm Taranis Secures $40M in New VC Funding

Taranis, an Israeli-based company that provides AI-powered crop intelligence, has raised $40 million in a new round of venture capital funding, bringing its total funding to $100 million, the company announced.

Bar Veinstein, Taranis' CEO, said, "I'm excited about our growth trajectory. The new funding will allow us to accelerate our three-year plan, rapidly expand our operations and deliver transformative technology to the market faster."

"We see a tremendous need for crop intelligence at scale as growers deal with soaring costs and a constant need to increase productivity

and yield," Ofir Schlam, Taranis' president & co-founder, added.

Taranis' crop intelligence platform uniquely leverages leaf-level imagery and is powered by cutting-edge machine learning that utilizes a crop data set of more than 200 million AI-data points. According to the company, it delivered "millions of actionable insights to ag advisors and growers" in the most recent growing season.

Schlam spoke at NAAA's 2019 Ag Aviation Expo about Taranis' innovative aerial imaging technology and the synergies it could present to agricultural aviation operations by mounting Taranis' proprietary high-tech camera pod to ag aircraft. Although Taranis relies on satellites, manned aircraft and UAVs to provide images of various resolutions, Schlam said manned aircraft is the best vehicle to take aerial images due to its speed and altitude and told NAAA Expo attendees that ag pilots are ideally suited for this type of flying.

In Taranis' announcement of its latest round of funding, Andre Ronsoehr of Seraphim Space Manager, one of Taranis' new investors, said, "When we discovered Taranis, they immediately stood out to us, given their sub-millimeter imaging capabilities. These images unlock early detection of nutrient deficiencies and diseases, which is the key to improving crop yields."

Since starting in 2015, **Taranis** has worked with the world's top agricultural retailers and crop protection companies, including BASF, Climate Corp., Nutrien and Syngenta, and serviced millions of acres for customers in the United States, Brazil and Europe. Taranis has offices in Westfield, Indiana, Tel Aviv, Israel, and Campinas, Brazil.

Farmers Deserve Notification Act Introduced

On Sept. 29, Reps. Jim Baird (Ind.-04) and Cindy Axne (Iowa-03) introduced the Farmers Deserve Notification Act, which would give farmers nine months to adapt to any new restrictions on pesticides. The bill would stop the EPA from canceling, suspending or enacting new restrictions on pesticides without first providing a 270-day advance notice in the Federal Register. If the latest data requires new restrictions to go into effect sooner than the 270-day notification requirement in the bill, it can be waived by a majority vote of the independent FIFRA Scientific Advisory Panel.

In the Farmers Deserve Notification Act's release statement, the representatives shared that farmers typically make input decisions months in advance, and last-minute changes have significant impacts on farmers' growing seasons, especially with recent supply chain bottlenecks.

The bill is supported by the Agricultural Retailers Association, the American Soybean Association, American Sugarbeet Growers Association, California Specialty Crops Council, Indiana Corn Growers Association, Indiana Soybean Alliance, Indiana Farm Bureau, Iowa Soybean Association, National Association of Wheat Growers, National Agricultural Aviation Association, National Onion Association, National Sorghum Producers and the North Dakota Grain Growers Association.

NAAA Support Committee Events at Ag Aviation Expo

We look forward to seeing you at the 2022 NAAA Ag Aviation Expo in Knoxville Dec. 5-8. The NAAA Support Committee has organized fun events at the Ag Aviation Expo for spouses/significant others, family members and office crew. Save $75 by pre-registering by Nov. 4 for what promises to be an outstanding convention!

2022 Ag Aviation Expo Support Committee Events

Monday, Dec. 5: Lunch & Tour of the Sunsphere: (RSVP required) 11:30 a.m.–2:30 p.m.
Join us for Monday's lunch and tour of the Sunsphere, which was built for the 1982 World's Fair and is a one-of-a-kind structure. The Observation Deck offers a breathtaking 360-degree view stretching from downtown to the Great Smoky Mountains including World's Fair Park, the Tennessee River and the University of Tennessee Campus. The Sunsphere offers a 1982 World's Fair timeline, gallery, memorabilia and gift shop. RSVP required for event to Cathy Ellett at **catellett@gmail.com**. *Sponsored by GarrCo Products Inc.*

Wednesday, Dec. 7, 8–9:30 a.m.: NAAREF Relationship Drift
(no RSVP required)
The Relationship Drift Session will look at how personal relationships affect pilot decision making and safety. Men and women should attend this session together, including couples and office crew. This is similar in format to the popular Com*paass* Rose program, but instead of better facilitating relations between inexperienced pilots and more experienced operators, the new session is designed to facilitate relations between operators/pilots and their spouses or significant others and office crew. All are invited!

Wednesday, Dec. 7, 9:45–11:45 a.m.: Athena Project Presentation
(no RSVP required)
Attend the Wednesday Athena Project presentation, The Importance & Challenges of Balancing Work and Home. The program is written by the Athena presenters and committee for the office bookkeepers, the working loaders, operators, pilots and family members. The program covers information that is beneficial to anyone in the industry and family members. Attend this session, whether you're a spouse, office crew or family member, to gain inspiration, encouragement and advice on better ways to serve our industry. All are invited and no RSVP is required. *Sponsored by Chuck Holzwarth Flying Service.*

NAAA & NAAREF Board Meetings Kick Off Tomorrow

The October 2022 NAAA & NAAREF Board and Committee meetings commence Friday and Saturday in Oklahoma City. Some meetings start today, and PAASS Train the Trainer concludes today. **Click here** to view a schedule.

All meetings are open to NAAA members. If you are not a board or committee member but are interested in attending, please contact **Lindsay Barber** for more details.

Hotel Details

Skirvin Hilton Oklahoma City
One Park Avenue
Oklahoma City, OK 73102
Hotel Phone: (405) 272-3040

NAAA CEO Discusses Ag Aviation on American Ag Today

NAAA CEO Andrew Moore discussed agricultural aviation on the Sept. 28 episode of the *American Ag Today* podcast. During his conversation with host Jesse Allen, Moore discussed technological innovations in the agricultural aviation industry over its 101-year history, the advantages of aerial application over other application methods, and several other topics.

"You're able to treat four to five times the amount of land than any other form of application, and when you're looking at pest pressure—whether it's [an] insect, whether it's a fungus, whether it's a weed—the faster you get to it, the better the yield harvest will be for that farmer," Moore said.

He also talked about aerial application's role in combating weed resistance. "When you're dealing with weed resistance now with a lot of the herbicides, you have to get to that weed when it's at a certain size. Once it grows to a certain length or maturity, it's much more difficult to eradicate," Moore explained. "It might be seeding and spreading, so aerial application can get to that crop disease, whatever it is, much faster than and at that pest's more-vulnerable point to eradicate it."

Allen asked what the agricultural aviation industry is doing to improve efficacy and mitigate drift. Moore cited a litany of technologies and techniques aerial applicators use, including 100% adoption of GPS systems for precise accuracy and the use of smokers and onboard meteorological measurement systems, which track wind speed direction, barometric pressure, humidity and other conditions in real-time and feed that data into the GPS unit for even greater accuracy, which is especially handy for treating the edges of fields. The industry has also made tremendous strides in improving the aircraft spray system's setup over the past 30-plus years.

Allen brought up using unmanned aircraft for spraying. "We do have a few members that are using drones for application," Moore said. "It's still very small. They are small for the most part—they're slow and small—but I think they have a niche. They can go to areas we wouldn't go to because they're too maybe cramped with obstacles and an aircraft couldn't get in there. But right now, in terms of treating the scope that we treat, 127 million acres out of 347 million acres … the [unmanned] fleet is just way too small and slow to come close to being able to treat that."

Moore estimated that spray drones only make up a quarter of 1% of the industry. That could change as technologies and regulations change, he added.

Allen also inquired about regulations or other pertinent issues NAAA is working on. "We work with the agencies to make sure products are registered and let them know about our technological advances, and also let them know that without aerial application and the judicious use of pesticides, we have to remember that there'd be far more land that would be used for farming, and that could take away endangered and threatened species habitat, it could take away carbon-sequestering forests, it could take away water filtering wetlands," Moore said.

"We consider ourselves climate-smart agriculture," he continued. "We're seeding cover crops. That's a huge issue now at the end of the season, where we're putting out cover crops over the cash crop…. We consider ourselves really part of the solution, and we need to make sure that the regulatory agencies take that into account."

Listen to the full podcast interview **here** or wherever you get your podcasts. *American Ag Today* is a production of the American Ag Radio Network. The "Talking Ag Aviation" episode debuted Sept. 28, and a condensed version of Moore's interview aired Oct. 3 on *American Ag Today* on SiriusXM Rural Radio 147.

NAAA Comments to EPA to Ensure Reregistration of Key Pesticides, Such as OPs, Remain Available for Aerial Use

On Sept. 25, NAAA submitted **comments to the EPA** on a petition to revoke all food tolerances and cancel registrations for what the petitioners claim are harmful organophosphate uses. The petition was submitted by numerous worker and environmental activist groups and covers 15 individual organophosphates currently going through the registration review process. The petition is in response to the EPA delaying the deadlines for finishing the registration reviews for the organophosphates. The petitioners claim this is unacceptable due to their belief that organophosphates poison people.

The petition mentions aerial application several times, claiming it represents the highest risk of drift to bystanders and that mixers and loaders supporting aerial applications cannot be adequately protected. Because the risk assessments the petitioners refer to were conducted using the Tier 1 AgDRIFT model, NAAA reminded the EPA about the inaccuracies of this model and once again implored them to begin using the Tier 3 model with realistic assumptions as detailed years ago by NAAA in a separate letter to the agency which has included numerous follow-up meetings. NAAA also made suggestions on PPE and engineering controls that would reduce the risk to mixers and loaders. In addition to our comments, NAAA signed on to **a letter from a coalition of agricultural groups**—including the Agricultural Retailers Association,
American Soybean Association, American Sugarbeet Growers Association and the California Specialty Crops Council—objecting to the petition.

The week prior, NAAA submitted comments on the Biological Evaluation (BE) for sulfoxaflor. A BE is the first step in the registration review process aimed at protecting endangered species. The BE for sulfoxaflor was also based on the use of the Tier 1 model in AgDRIFT, so NAAA commented on using Tier 3 again as well as once again promoting that the buffer zones the EPA is proposing should be wind directional. One of the mitigation options mentioned in response to the BE was to ban aerial application of sulfoxaflor on crops where aerial application is not used frequently. NAAA reminded the EPA that aerial application may not be a normal option for certain crops and pesticides but can become a critical option during pest outbreaks or when weather restricts other application platforms.

Earlier in September NAAA commented on the proposed interim decisions (PID) for tebuconazole and triadimefon/triadimenol. These PIDs were encouraging as they both acknowledged progress being made in regard to the EPA shifting to the Tier 3 AgDRIFT model with realistic assumptions. The PID for triadimefon/triadimenol proposed a maximum wind speed of 10 mph for aerial applications, which NAAA objected to, citing numerous recent PIDs that have allowed aerial applications in wind speeds up to 15 mph.

NAAA continuously monitors pesticide registration review activities and comments as needed to ensure aerial application remains on the labels.

EPA's Pesticide Registration Review Deadline (Oct. 1): Status Update and Plans for Remaining Work

The Federal Insecticide, Fungicide, and Rodenticide Act's (FIFRA) pesticide registration review deadline is Oct. 1, per the statute's 15-year reregistration schedule. Pesticides without finalized review as of this deadline can remain on the market and be used according to the product label. The EPA will continue to review all remaining pesticide cases in the meantime.

In the past 15 years, the EPA has:

- Completed 685 draft risk assessments (94% of the total number of cases), evaluating the potential for human health and ecological effects of a pesticide.
- Completed 633 proposed interim decisions or proposed final decisions (87% of the total number of cases), which present the EPA's responses to public comment on draft risk assessments and which propose label mitigations and/or restrictions so that a pesticide product can continue to be used safely.
- Issued 431 interim decisions (60% of the total number of cases), which explained any changes to what had been proposed, responded to significant public comments and required registrants to submit any product label amendments needed to protect human health and the environment.
- Issued 151 final decisions (21% of the total number of cases), which document any changes to what had been proposed, respond to significant public comments, and require registrants to submit any product label amendments needed to protect human health and the environment.
- Of the 582 interim or final decisions, 140 cases resulted in cancellations of some or all uses (19% of the total number of cases).

Of the 726 total cases, 461 are conventional agricultural pesticides. Conventional pesticides are generally produced synthetically and are used to prevent, mitigate, kill or repel any pest. They may also act as a plant growth regulator, desiccant, defoliant or nitrogen stabilizer. For conventional pesticide cases, the EPA has:

- Completed 99% of the draft risk assessments, completed more than 90% of the proposed interim decisions and issued more than 80% of the final or interim decisions.
- Canceled some or all uses in 25% of cases with final or interim decisions.
- Required human health and/or ecological risk mitigation for nearly 70% of cases for which the EPA completed interim or final decisions.
- Required new or additional personal protective equipment requirements and/or engineering controls for 98% of cases where the EPA required mitigations to protect human health.
- Required application rate reductions in 60% of cases, changes to restricted entry intervals in 30% of cases and use cancellations in 20% of cases where the EPA required mitigations to protect human health.
- Instituted requirements to reduce pesticide drift for 80% of cases where the EPA required mitigations to protect from ecological risks.
- Set requirements to reduce pesticide runoff, such as no-spray buffer zones, vegetative filter strips and/or application rate reductions for more than 20% of cases where the EPA required mitigations to protect from ecological risks.

Of the 726 total cases, 265 are nonconventional pesticides (140 antimicrobial pesticides and 125 biopesticides). Antimicrobial pesticides are intended to disinfect, sanitize, reduce or mitigate growth or development of microbiological organisms, or prevent contamination caused by bacteria, viruses, fungi, protozoa, algae or slime. Biopesticides are pesticides derived from natural materials like animals, plants, bacteria and certain minerals. For these cases, the EPA has:

- Completed final or interim decisions for 71% of antimicrobial cases.
- Canceled some or all uses in more than 30% of antimicrobial cases with interim or final decisions.

- Finalized human health and/or ecological risk mitigation for nearly 30% of antimicrobial cases with interim or final decisions.
- Increased personal protective equipment requirements and/or engineering controls for more than 65% of antimicrobial cases where the EPA required mitigations to protect human health.
- Completed final or interim decisions for 98% of biopesticide cases.

While the EPA has completed final or interim decisions for all but 144 of the 726 total pesticide cases, the agency has been delayed in its ability to issue many final decisions. According to the EPA, delays are due to receiving data from registrants, a lack of resources to respond to ongoing and increasing litigation, and the scientific complexity associated with many of the pesticides yet to go through the registration review process. As further described below, the EPA also must comply with the Endangered Species Act (ESA) and Endocrine Disruptor Screening Program (EDSP) obligations and complete cumulative risk assessments before its registration review work can be finalized.

Background

In 2007, an amendment to FIFRA formalized a requirement that the EPA review each registered pesticide every 15 years to determine whether pesticides continue to meet the standard for registration—that they do not present unreasonable adverse effects on human health or the environment. This amendment set the first registration review deadline as Oct. 1, 2022. During the registration review process, the EPA has completed work plans, draft risk assessments, proposed interim decisions/proposed decisions and interim decisions/final decisions. Throughout this process, the EPA makes its information, assessments and supporting material for each case available to the public through each case's docket at **www.regulations.gov**. There are 726 conventional, biopesticide and antimicrobial pesticide cases that were registered before Oct. 1, 2007.

In order to complete the registration review for a pesticide and issue a final decision, the EPA must complete an ESA listed-species assessment and any necessary ESA consultation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service (the Services). For each pesticide ingredient, the entire FIFRA and ESA process typically takes no less than four years and sometimes over 12 years. To minimize the time needed to complete this process, the EPA has taken significant steps to fundamentally improve how it fulfills ESA obligations in its pesticide work. The EPA's work plan, **Balancing Wildlife Protection and Responsible Pesticide Use**, describes new approaches to come into compliance with ESA.

As part of implementing the work plan, the EPA expects to release a work plan update in November 2022 explaining how it will adopt early mitigation for ESA species as part of registration review decisions. Even though early mitigation does not mean that the EPA has fully met its ESA obligations for a pesticide, it should contribute meaningfully to meeting those obligations and facilitate future ESA reviews. The EPA will also host a public webinar to explain the update and other ongoing ESA efforts, including ESA pilot projects described in the work plan. More information on this event is forthcoming.

The EPA's registration review final decisions have also taken into account EDSP screening, consistent with the Federal Food, Drug, and Cosmetic Act § 408(p). The EPA is required to screen and test certain substances to determine whether they may have an effect in humans that is similar to an effect produced by a naturally occurring estrogen or other endocrine effects. The EPA plans to issue a draft Endocrine Disruptor Screening Program White Paper for public comment. This white paper will address the EPA's use of new approach methodologies (NAMs) that may serve as alternatives to a vertebrate animal test and other in vitro assays. The availability of NAMs in EDSP, along with recent updates to internal EDSP standard operating procedures, represents an important next step in the EPA's efforts to rebuild this program. The current Tier 1 methods used for screening chemicals for endocrine disruption are expensive, require extensive staff time and use laboratory animals. These new approach methods will allow the agency to screen chemicals more efficiently and ultimately provide better data.

Finally, the EPA must complete cumulative pesticide risk assessments as part of the registration review process where necessary. A cumulative risk assessment evaluates the potential for people to be exposed to more than one pesticide at a time from a group that shares an identified common mechanism of toxicity. A common mechanism of toxicity is identified when two or more chemicals or other substances cause common toxic effects by the same process. The EPA's cumulative risk assessments approximate people's actual exposures and potential risks resulting from current uses of pesticides in different parts of the country. To develop these assessments, the EPA considers potential exposures from food, drinking water and residential sources.

AD proposed for GE 601 and H 80 Series Engines

The FAA proposes to adopt a new airworthiness directive (AD) for certain GE Aviation M601D-11, M601E-11, M601E-11A, M601E-11AS, M601E-11S, M601F, H75-100, H75-200, H80, H80-100, H80-200, H85-100 and H85-200 model turboprop engines. This proposed AD was prompted by reports of cracks in dilution tube weld areas of the combustion chamber outer liner. This proposed AD would require initial and repetitive borescope inspections of the dilution tube weld areas of the combustion chamber outer liner and, depending on the results of the inspections, replacement of the combustion chamber outer liner with a part eligible for installation.

If adopted as proposed, action would be required at the next 300-hour engine inspection or within 25 flight hours (FHs) after the effective date of the AD, whichever occurs later, and thereafter at intervals not to exceed 300 FHs.

Comments on this proposed AD are due by Nov. 14, 2022. To read the complete AD or submit a comment, click **here**.

Beware of Fraudulent Email with Ag Aviation Expo Name

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.

Pre-Register for the Ag Aviation Expo to Avoid Long Lines On-site

We urge you to pre-register before Nov. 4 for the 2022 Ag Aviation Expo, which saves you $75 per person. Pre-registration helps us to have accurate food, beverages and seating counts at our events. **Attendee registration** and **booth sales** are open for the NAAA Expo in Knoxville Dec. 5-8! You'll hear from Captain Scott Kelly, the history-making NASA astronaut who spent one year in space, at the Monday **Kickoff Breakfast**. Tuesday's **General Session** features Dr. Stan Musick and Michelle Miller, the Farm Babe.

If you're looking to grow your business, find a job or sell a product or service in the aerial application industry, the 2022 Ag Aviation Expo is the place for you! Our expo has everything from a world-class trade show floor featuring aircraft and helicopters to education sessions, expert speakers and many networking opportunities!

Getting to Knoxville

Knoxville is located at the intersection of I-75 and I-40, just a day's drive from more than half of the U.S. **McGhee Tyson Airport (TYS)** offers more than 20 direct flights. Flying your own aircraft? Check out **Knoxville Downtown Island Airport (DKX)**.

As you search your airfare options into Knoxville for the Ag Aviation Expo, visit NAAA's Transportation Discount webpage at **AgAviation.org/transportation** and explore tickets on American, Delta and United Airlines.

Knoxville is centrally located for those in the eastern U.S. who would like to drive. *Contact your **hotel** for parking details. Book your hotel room **online**.*

- **Atlanta, GA:** 192 miles
- **Birmingham, AL:** 252 miles
- **Charlotte, NC:** 215 miles
- **Cincinnati, OH:** 248 miles
- **Louisville, KY:** 238 miles
- **Memphis, TN:** 388 miles
- **Nashville, TN:** 178 miles
- **Raleigh, NC:** 333 miles
- **Richmond, VA:** 420 miles

Low-Time Pilot Registration

If you are an ag pilot with less than five years of experience or are interested in becoming an ag pilot, we are offering a special price to attend the NAAA Ag Aviation Expo for pilots like you. Further details are available **here** *(scroll down to the Low-Time Pilot Registration section)*.

Details for the 2022 Ag Aviation Expo

- **Dates:** Dec. 5-8, 2022
- **Location:** Knoxville Convention Center
- **Kickoff Breakfast Speaker: Captain Scott Kelly**, first astronaut to complete a year-in-space mission.
- **General Session Speakers: Dr. Stan Musick & Michelle Miller**
- **Schedule of Events:** See the current, tentative schedule **here**.
- **Hotel:** Details **here**.
- **Attendee Registration: Now open**!
- **Exhibitor Booth Sales Information**
- **Sponsorship Opportunities:** Sponsorships are now available. View the **opportunities here**. Please **email Lindsay** if you would like to secure a sponsorship from last year or would like to be contacted about 2022 opportunities! We have sponsorships available for all budget sizes.
- **Auction Donations: Thank you to Pratt & Whitney Canada for donating a PT6-34AG engine to this year's NAAA Live Auction.** While we are still a few 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.

Dusty Dowd, Veteran Aerial Applicator Extraordinaire, Wins Silver Unlimited Class Event at Reno Air Races

On Sept. 18, NAAA member Dusty Dowd won the Silver Unlimited class event at the Reno Air Races in Nevada. Dowd, who recently retired after a lengthy career as an aerial applicator in Syracuse, Kansas, remains an active air racer.

The last time he competed at the Reno Air Races was in 2016, when he also took first place in the Silver Unlimited class. The Unlimited class consists of WWII fighter planes. This year Dowd raced in a 1943 P-51-A Mustang. It is one of only two P-51-A planes still flying in the world, with Dowd's P-51-A being the oldest one.

Dowd bested seven other Mustangs in the Silver Unlimited final, which had a race speed of 340 mph. He flew in two heats beforehand to qualify for the Silver Unlimited final race. Dowd won the first one last Thursday. He let up a bit in last Saturday's second heat since he had already qualified for the finals.

After being an aerial applicator for 52 years, Dowd admits that his experience and comfort flying at low altitudes gave him a decisive leg up on his racing counterparts. "Of the people I flew against, it's almost not fair because those guys are all corporate pilots and airline pilots," he said. "They're used to flying high and I'm used to flying low, so it's natural for me, but it's not for them. I think it's probably a lot more stressful for them than me."

Dowd went to his first air race when he was seven years old in Fulton, New York, and has been hooked ever since. Last week was Dowd's 16th time competing at the Reno Air Races, in fact. He raced for 13 consecutive years from 1979 to 1991 before returning in 2015 and '16 and again this year.

Dowd wishes to extend special thanks to Craig Bair of Bair Aviation in Sisseton, South Dakota, who served as his crew chief, and sponsor Garold Kurtz of Kurtz Rural Aviation in Mound City, Missouri, whose financial support helped cover Dowd's expenses for the Reno Air Races. "It's a massive team effort to overcome the logistics to get an unlimited airplane to Reno," Dowd said. "Many friends and competitors enabled us to get to the race and keep racing once we were there."

For next year's Reno Air Races, Dowd intends to race in his Yak-11, his winning plane at the 2016 races. Dowd flew the Yakovlev Yak-11 at 376 mph during his winning sprint around the race course in '16. Next year he anticipates flying the Yak at 400 mph.

Operator Ike Brunetti and Mississippi AAA Host EPA's Office of Pesticide Programs at Shelby Air Service

On Aug. 31, NAAA member Ike Brunetti and the Mississippi Agricultural Aviation Association (MAAA) hosted a group of EPA officials from the Office of Pesticide Programs at Shelby Air Service in Shelby, Mississippi. The site visit was one of the EPA delegation's stops on an agricultural tour through the Mississippi Delta region.

A number of high-ranking agency officials attended the EPA fly-in, including Ed Messina, the director of the EPA's Office of Pesticide Programs, and Rodney Snyder, the senior agriculture advisor to the EPA Administrator. Representing MAAA along with Brunetti and JT Davis, who flies for Shelby Air Service, were fellow aerial applicators Chuck Travis (MAAA's president), Lyle Malloy (MAAA's vice president), Glenn Holloway Jr. (MAAA's NAAA board representative), Glenn Holloway III (MAAA's secretary), and Steve Brown who, like Brunetti, is a member of MAAA's Executive Committee. Officials from other ag groups were also on hand. Roughly 25 people attended the aerial application demo event in all.

During an aerial application demonstration, Brunetti simulated a liquid application with a full-length boom, which is 70% of the wingspan in Mississippi. He followed that up with spray passes from a boom length reduced to 50% of the wingspan to demonstrate the corresponding reduction in swath width.

A great Q&A session took place over lunch, which MAAA provided. MAAA's officers also took advantage of the opportunity to press the EPA, once again, to update the AgDRIFT model it uses to estimate the risk of drift from aerial applications. Instead of relying on AgDRIFT's simplified Tier 1 model, which uses outdated assumptions about how aerial applications are made, the aerial applicators encouraged agency officials to use the Tier 3 model, with its more realistic and label-enforceable assumptions.

The opportunity to interact with aerial applicators at a state-of-the-art aerial application operation was an invaluable experience for the EPA delegation. NAAA commends Shelby Air Service's Ike Brunetti for providing the venue and MAAA for hosting the EPA fly-in.

NAAA Addresses FAA-Industry Safety Partnership, GAJSC, on Ag Aviation Accidents

NAAA staff addressed the General Aviation Joint Safety Committee (GAJSC) on Sept. 20, per an invitation from the industry-government safety initiative to discuss 2022 ag aviation accidents. NAAA gave details on the 44 ag aviation accidents, including nine fatalities, that the industry has suffered this year, along with the preliminary reasons for the accidents. Those reasons ranged from power loss in five instances to trees, towers and wires being hit by aircraft in nine cases. NAAA discussed the continuing decline in ag accidents per 100,000 hours flown since 1999 due to industry educational efforts. NAAA also reiterated the importance of the FAA promulgating tower marking/logging rules and the expansion of its educational program next year with C-PAASS—Certified Professional Aerial Application Safety Steward.

The joint safety committee's members offered insightful ideas, including accessing WireAware™ wire-strike avoidance technology. The transmission line display and alerting system pulls from obstacle databases that contain about 700,000 miles of power lines for the U.S. In addition, GAJSC members asked about research leading to the cause of fatal ag aviation accidents to better direct research efforts on safety equipment.

The GAJSC, launched in 1997, is a public-private partnership working to improve general aviation safety by reducing the GA fatal accident rate. The committee analyzes aviation safety data to identify emerging issues and develop mitigation strategies to address and prioritize safety issues. Participants include the Federal Aviation Administration (FAA) and industry stakeholders, including pilot organizations, flight instructors, mechanics, builders and manufacturers.

Robinson Tail Rotor Blade AD Superseded

The FAA is superseding Airworthiness Directive (AD) 2021-19-08, which applied to certain Robinson Helicopter Company (Robinson) Model R44 and R44 II helicopters. AD 2021-19-08 required checking each tail rotor blade (blade) for any crack and removing any cracked blade from service.

Since the FAA issued AD 2021-19-08, it was determined that an additional model helicopter and additional blades are affected by the unsafe condition. This AD requires the same actions as AD 2021-19-08 and adds certain Robinson Model R66 helicopters and additional part-numbered and serial-numbered blades to the applicability.

The complete AD is available **here**. It goes into effect Oct. 20. Action is required before further flight after the effective date of this AD and thereafter before each flight.

Proposed AD Supersedes Continental Engines Oil Filter Adapter Gasket AD

The FAA proposes to supersede Airworthiness Directive (AD) 2022-04-04, which applies to certain Continental Aerospace Technologies Inc. (Continental) C-125, C145, IO-360, IO-470, IO-550, O-300, O-470, TSIO-360 and TSIO-520 series model reciprocating engines and certain Continental Motors IO-520 series model reciprocating engines with a certain oil filter adapter installed.

Since the FAA issued AD 2022-04-04, the FAA determined that the reciprocating engines identified in the applicability of AD 2022-04-04 are incorrect. This proposed AD would require replacing the fiber gasket with the copper gasket or the stainless steel embedded within the polytetrafluoroethylene gasket (stainless steel PTFE gasket). This proposed AD would also revise the applicability to add and remove certain reciprocating engine models. In addition, it would update the required actions to add an additional part-numbered stainless steel PTFE gasket as a replacement part and revise the special flight permit paragraph to expand the limitations.

To view the complete proposal or to comment, click **here**. Comments are due by Oct. 31.

NAAA Membership Renewal Open for 2023, Renew Today!

Thank you for your support of NAAA as a 2022 member. NAAA delivers remarkable value that benefits your bottom line, provides the crop input tools you need, enhances the industry's safety and professionalism through substantive educational programming and offers excellent business networking opportunities. Please **renew your NAAA membership** for 2023. Watch our new video below, where you'll hear from your fellow members why membership is essential to your business.

NAAA continues to passionately advocate on behalf of ag aviation and raise awareness about its benefits to the public and national policymakers, which we capitalized on across policy and all media channels during the **100th anniversary** of the industry.

This positive coverage of the industry and its importance to global food, fiber and bioenergy production comes at a crucial time as NAAA fights to preserve the aerial use of pesticides that are being targeted for cancellation or unnecessary and burdensome restrictions under current EPA leadership. It takes your membership resources to save these aerial uses and positively represent the industry before the public.

As the industry moves into its second century, NAAA and NAAREF have developed a way to augment industry advancement of safety and application accuracy while showing your customers, regulators, insurers, pesticide manufacturers, and the public the professional nature of the industry. Our new **Certified-Professional Aerial Applicator Safety Steward (C-PAASS)** program, launching in 2023, will fill that very role for those that want to participate. We know education works to reduce accidents and drift occurrences based on PAASS program stats. Since the first PAASS season in 1998-1999, the ag aviation accident rate (number of accidents per 100,000 hours flown) has dropped nearly 26%, and the fatal accident rate has fallen 10%.

The impetus for developing C-PAASS was to expand and gain recognition for maximizing professionalism by ultimately receiving additional benefits for being certified, such as insurance discounts and more flexibility pertaining to pesticide label language and for ag pilots to market to their customers that they have undergone additional training and development to best ensure that they can provide high-quality service.

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. Trade association membership dues are tax deductible.

2022 Ag Aviation Golf Tournament Oct. 15-16

NAAA members are invited to join your Arkansas brethren for a fun weekend of golf and fellowship Oct. 15-16. The **Red Apple Inn and Country Club** in Heber Springs, Arkansas, is hosting the **2022 Ag Aviation Golf Tournament**.

The $175 entry fee covers two rounds of golf, happy hour and dinner at the Red Apple Inn and Country Club on Saturday evening. (A dinner-only fee of $45 is available for non-golfers.) The tournament starts at 8 a.m. Saturday, Oct. 15, with a two-person scramble format. The final round tees off Sunday, Oct. 16, with a shotgun start at 8 a.m.

Inn rooms and two-bedroom condos are available at the Red Apple Inn for $150 and $235/night, respectively. Call the Red Apple Inn at 1-800-733-2775 and use the reservation code “AG AVIATION” to reserve your room.

To register for the 2022 Ag Aviation Golf Tournament, please complete the **player registration form** and mail it with a check payable to “Ag Aviation Golf Tournament” to:

Brenda Watts
120 Norris Lane
Watson, AR 71674
(870) 377-5241

Sponsorship opportunities are also available, including placing your name on a tee box or banner. Please refer to the **sponsorship registration form** for more information.

A small group of Arkansas aerial applicators organizes the annual golf tournament. Each year the organizers donate the tournament’s proceeds to a different organization of their choosing. Proceeds from the 2022 tournament will be donated to St. Jude Hospital. For more information, please contact the 2022 Ag Aviation Golf Tournament organizers. Contact information for members of the tournament committee is available **here**.

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**.