February 3, 2022

NAAA eNewsletter

Harley Curless Dispels Fears About Aerial Application Pesticides on SharkFarmer TV

Harley Curless of Curless Flying Service and Farm Air Inc. in Astoria, Illinois, provided some valuable perspective on the pesticides aerial applicators apply by comparing them to chemicals in everyday products consumers use in a recent appearance on SharkFarmer TV, an online ag show. SharkFarmer TV is hosted by Rob Sharkey, a fifth-generation farmer from Illinois.

Curless used Nix, an over-the-counter head lice treatment available at almost any drug store, as one example. With a small bottle of Nix shampoo propped on Sharkey's desk, Curless explained, "In that shampoo there, the primary product's called Permethrin. That's exactly what we put on the seed corn and the seed beans to treat the insects."

Sharkey placed a canister of Desenex, an athlete's foot aerosol spray, on his desk next. "The same chemistry used for your feet—well, that's the same chemistry as the fungicides that we put on for the corn now," Curless said.

NAAA commends Curless for a job well done allaying consumers' fears about the chemicals aerial applicators spray. Watch the exchange **here**.

NAAA Participating in Ag Day on the Mall in March

NAAA will be exhibiting at Ag Day on the Mall to celebrate National Ag Day on March 21-22. The event will take place on the National Mall in Washington, D.C., near the **Smithsonian Metro stop** between the Capitol building and the Washington Monument.

Ag Day on the Mall is a celebration of modern agriculture that will feature more than 20 exhibiting associations and companies from grower to applicator groups to ag equipment manufacturers and is being organized by the Association of Equipment Manufacturers. The event will feature hands-on displays of modern equipment and technology for the public to learn how the latest ag equipment, crop inputs, data and technology work together to drive agriculture's tradition of producing more with less. Key policymakers from the executive and legislative branches will be attending the events and exhibits as well.

NAAA is excited to have a Bell OH-58 helicopter and staff from Helicopter Applicators Inc. in Gettysburg, Pennsylvania, at Ag Day on the Mall. Our booth space will also feature a recirculating pump so that attendees can see how aerial application spray nozzles work, as well as the 100th anniversary timeline panels.

Thank you to Glenn Martin for providing the aerial application equipment and to his staff, Joe Stambaugh and Brock Heffner, who will be assisting in the booth space.

NAAA Participates in Federal Listening Session on Endangered Species Pesticide Issues

Last week NAAA participated in a public listening session on issues related to endangered species and pesticides. The listening session was held by a federal interagency working group (IWG) working on improving the consultation process between the numerous federal agencies involved with ensuring registered pesticides don't harm endangered species, as required by the Endangered Species Act (ESA). The IWG was created under the 2018 Farm Bill and consists of five federal agencies: the White House Council on Environmental Quality, the Department of Agriculture (USDA), the Department of Commerce, the Department of the Interior and the Environmental Protection Agency (EPA). The session was intended for the IWG to hear from public stakeholders interested in improving the ESA consultation process to gather information to develop potential remedies.

NAAA offered public comments on two of the three questions the IWG is seeking perspectives on. The first question was, "How could pesticide mitigation measures for ESA species be adopted and implemented in a timely and effective manner?" NAAA answered the question by reiterating points made to the EPA over the last several years on improving the AgDRIFT modeling process used to assess the risk to endangered species and the environment overall from aerial applications. NAAA stated that all pesticides with an aerial label should require a minimum droplet size of medium, require a maximum boom length of 75% of wingspan for fixed-wing aircraft and 85% of rotor diameter for helicopters, prohibit applications during an inversion, and require a minimum upwind swath displacement of half the swath width on the downwind side of the application site.

AgDRIFT modeling using the Tier 3 model should include these label restrictions, as well as base the model on an application to a standing crop, not bare ground, and a wind speed measurement height appropriate for an aircraft, not a ground rig. A more accurate model of the potential drift from aerial applications will reduce the modeled risk to endangered species, which is currently overinflated due to the use of the inaccurate Tier 1 model in AgDRIFT. If the risk assessments are more accurate in the first place, less mitigation will be needed during the consultation between the federal agencies involved.

The second question that NAAA responded to was, "What are other priority actions the IWG should consider pursuing to improve the pesticide consultation process?" NAAA used its 90-second opportunity to answer this question by informing the IWG about the environmental benefits of using aerial application. NAAA described how the speed, timeliness and lack of disturbance to the crop results in

a yield increase from aerial applications compared to other forms of application. This yield increase protects 27.4 million acres of forests and other natural lands from being converted into cropland annually. The cover crops seeded by aerial application reduce 1.9 million metric tons of CO_2 equivalent annually. NAAA relayed the importance of aerial application to agriculture, forestry and public health by providing the number of acres treated annually by air for these types of applications. NAAA concluded by informing the IWG that the aerial application industry provides a value of $37 billion to the U.S. economy for corn, soybean, wheat, cotton and rice crops alone.

Numerous other organizations and companies also provided public comments during the hearing, including Corteva Agriscience, Oklahoma State University, the American Farm Bureau Federation, CropLife America, Syngenta Crop Protection, the National Pest Management Association, the American Soybean Association, the National Corn Growers Association, the Georgia Cotton Commission, the USDA Forest Service, the Center for Biological Diversity and the American Bird Conservancy. NAAA will continue to monitor the ESA consultation process to ensure that inaccurate risk assessments caused by poor modeling do not threaten the ability to apply pesticides by aerial application.

NAAA Advocates To Michigan's Legislature for Continued Operation S.A.F.E. Aircraft Application Equipment Testing for All Aerial Applicators Operating in State

Analysts evaluate aircraft performance at an Operation S.A.F.E. fly-in clinic.

A bill recently introduced in the Michigan House of Representatives—Michigan House Bill 5700—would amend Michigan's Natural Resources and Environmental Protection Act of 1994 to allow reciprocal agreements with other states' certification of aerial applicators—even if those applicators in other states were not required to participate in a self-regulating application flight efficiency clinic, or Operation S.A.F.E pattern testing clinic. Section 8315 of Michigan's Natural Resources and Environmental Protection Act of 1994 requires Michigan aerial applicators to:

> (a)Demonstrate…the applicator's personal participation in a self-regulating application flight efficiency clinic sponsored or recognized by the Michigan cooperative extension service and approved by the department with an aircraft that the applicant operates.

NAAA communicated with the Michigan House of Representatives' Agriculture Committee Chairwoman and Ranking Minority Member, Julie Alexander and Alex Garza, respectively, emphasizing their support of states' offering reciprocity with other states' certified applicators if it ensures an equal or exceeding level of certification. NAAA emphasized that "many U.S. aerial applicators are itinerant in nature. They will travel to one location or another to aid their fellow aerial applicators in other regions, assisting them in the event of a pest outbreak, or abundance of other application work that a local aerial applicator cannot handle without assistance due to the time pressures protecting a crop may sometimes bring."

NAAA also emphasized the importance of equal or more rigorous reciprocity requirements to aid local aerial application businesses and took issue with a provision of Michigan House Bill 5700 that would alter reciprocity requirements for out-of-state aerial applicators by exempting them from key environmental and professional requirements in which Michigan aerial applicators must abide, such as by removing from Michigan's Natural Resources and Environmental Protection Act of 1994 the requirement that every three years Michigan aerial applicators to participate in a self-regulating application and flight efficiency clinics, also known as Operation S.A.F.E. (Self-Regulating Application and Flight Efficiency) clinic. NAAA emphasized to Michigan's House Ag Committee leaders that Operation S.A.F.E. aerial application pattern testing clinics are events where:

> Aerial applicators have their aircraft spray systems tested for droplet efficacy and drift prevention. Aerial applicators participate in Operation S.A.F.E. fly-in clinics to evaluate their aircraft set-up, nozzle selection and calibration, boom adjustment, and application efficiency. Clinic analysts verify spray pattern, droplet size, and calibrate the aircraft performance to ensure the application set up is making the most efficacious application possible to protect a crop and to ensure the mitigation of off target drift or droplets so the applied materials go where intended to ensure environmental safety and safety to nearby crops. Operation S.A.F.E. was developed in 1981 and was designed to clearly demonstrate that ag aviation recognizes its responsibility to minimize the potential for adverse health and environmental effects of agricultural chemical applications.
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> NAAA is convinced that full implementation of Operation S.A.F.E. offers substantial advantages to the operator, his customers, and the producers of chemicals applied by air. These advantages are found in economy of operation and application, as well as in increased safety and reduced health and environmental concerns. The key to the effectiveness—and acceptance—of aerial application is the spray pattern of the aircraft itself and the dedication of operators to its accuracy. Swath study and analysis have been a part of aerial application since the first plane dusted an Ohio catalpa grove in 1921. Since that time, scientists at land grant universities, private corporations, and aerial applicators have been active in improving the state-of-the-art of aerial application. Chemical manufacturers have worked on chemical formulations and additives to improve the pilot's ability to put the product on the target. Today, equipment is available to provide the operator a precise picture of swath characteristics, and to provide it quickly. Thus, the Operation S.A.F.E. fly-in becomes a professional application analysis clinic. The

> Operation S.A.F.E. clinic gives the operator and pilot the opportunity to test his equipment with a trained analyst to help interpret the information and to recommend changes to improve performance. A follow-up test is immediately available, so the operator can be certain improvement does exist.
>
> In addition, participating applicators learn compliance with manufacturers' mixing rates, application recommendations, and label requirements of agricultural chemicals; their adequacy of safety procedures in storing and handling agricultural chemicals; and compliance with flight safety procedures. NAAA urges every operator and pilot to participate in an Operation S.A.F.E. clinic yearly. At a minimum, the Operation S.A.F.E. Committee suggests an aircraft be pattern tested every 24 months or after any major changes to their application equipment.
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> As such, NAAA strongly suggests that the requirements for participation in a self-regulating application flight efficiency clinic remain for all applicators conducting work in the state of Michigan—whether or not those operators are Michigan operators, or out of state operators. Clinics are offered year-round and nationwide for both Michigan aerial applicators and aerial applicators out of state to participate.

The Michigan House Agriculture Committee was slated to hear testimony and discuss the bill earlier this week, but the meeting was rescheduled due to inclement weather. NAAA's full comments to Michigan House Ag Committee leaders are available **here**.

NAAA's Comments on Amazon and Other Drones Being Responded to by FAA

A rule issued by the FAA last week announced the special class airworthiness criteria for the Amazon Logistics Inc. Model MK27-2 unmanned aircraft. Amazon applied for this special class type certificate on Oct. 13, 2017, and the FAA issued a notice of proposed airworthiness criteria on Nov. 20, 2020. The complete criteria is available **here**.

On Nov. 30, 2020, NAAA submitted comments to the FAA opposing the approval of Amazon's and eight other unmanned aircraft systems' (UAS) airworthiness criteria due to a dearth of safety provisions in the proposals. NAAA reported on the proposed airworthiness criteria in the **December 3, 2020 eNewsletter**. In the comments, NAAA stressed the importance of aerial application and the necessity for safe, low-altitude airspace to ensure that agricultural pilots can continue to do their jobs safely.

NAAA believes that any UAS airworthiness criteria needs to have some type of sense-and-avoid technology. This is especially important for the UAS operating beyond visual line of sight (BVLOS) proposed in the airworthiness criteria. While promising sense-and-avoid technologies are being developed for BVLOS, they are currently not proven under actual conditions with agricultural aircraft. In the Amazon proposal, allowing up to a 20-to-1 UAS-to-pilot ratio and statements such as "the aircraft must not require exceptional piloting skill or alertness" indicated that the aircraft would be mostly operated autonomously by computer software, which is of concern to aerial applicators.

NAAA's comments on the overreliance of software being a source of accidents and requesting that ADS-B in/out and traffic avoidance software, strobe light and high-visibility paint schemes be required, and measures for safe operations at low altitudes were specifically mentioned in the FAA's summary of changes to the airworthiness criteria. While the agency did not find it necessary to change the airworthiness criteria, the FAA did state that several of NAAA's comments will be addressed during operational approval. NAAA expects that the other eight drone companies' airworthiness requests will be approved since they were all similar in nature. NAAA continues to monitor these requests and insist that our recommendations, if not included in the airworthiness criteria, be included during the operational approval.

Operation S.A.F.E. Analyst Training Opportunities

If you are interested in receiving training toward becoming a NAAREF-approved Operation S.A.F.E. analyst or technician, several opportunities are coming up in 2022. Dr. Dennis Gardisser of WRK of Arkansas will be conducting several Operation S.A.F.E. fly-in clinics over the next few months and has offered anyone interested in becoming an analyst or technician the opportunity to join him at a clinic to assist. You will learn how to operate the flight line and pattern analysis equipment and get real-life experience analyzing patterns from agricultural aircraft.

Dr. Gardisser will be conducting Operation S.A.F.E. clinics at the following locations and dates (subject to change due to weather). Please contact Dr. Gardisser at (501) 676-1762 or **dgardisser@wrkofar.com** for specific details.

- February 7-8; Garwood, TX
- February 10; Lake Village, AR
- March 22-24; AR (multiple locations)
- March 28-29; Gould, AR
- April 11-15; SD (multiple locations)
- May 11-12; Park Rapids, MN
- May 13-14; Sterling, CO

Click **here** to learn more about the Operation S.A.F.E. program. Analyst qualifications can be found **here**.

NAAA and NAAREF Board Meetings, Feb. 18-19, Moved from Montreal to Fort Worth

The February 2022 NAAA & NAAREF Board and Committee meetings have moved from Montreal to Fort Worth, Texas, Feb. 18-19. Click **here** to view a schedule.

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

Hotel Details

Kimpton Harper Hotel
714 Main Street
Fort Worth, TX 76102

Reservations: Call 800-482-8372, Code is NAA *(only two A's)* or **online here**.
Room Rate: $199/night
Room Block Closes: Feb. 8, 2022

Set Yourself Up for New Year's Success by Renewing Your NAAA Membership

Renewals are open for the NAAA 2022 membership year. You can renew **online** today or over the phone at (202) 546-5722. As a member of NAAA, you associate with the best and brightest in the agricultural aviation industry and your support is imperative in helping us accomplish our initiatives and celebrate industry milestones. NAAA has spent the past couple of years gearing up to help the industry celebrate 100 years in 2021 and continuing into 2022!

- NAAA developed a 100th anniversary campaign and large public relations effort, including:
    - The long-awaited *Agriculture's Air Force: 100 Years of Aerial Application* book, which is 268 pages and covers 10 decades of industry history (purchase it **here**).
    - 100th Anniversary **website**.
    - 100th Anniversary timeline **online** and that you can **purchase** for your operation and/or events.
    - **Documentaries: 2-minute video**, **8-minute documentary** and a comprehensive **19-minute documentary**.
    - NAAA has helped the industry celebrate the 100th anniversary at **AirVenture 2021** in Oshkosh, Wisconsin; the **Aug. 3 centennial celebration** in Leesburg, Virginia; **"Innovations in Flight Family Day"** at the National Air and Space Museum's Udvar-Hazy Center in Chantilly, Virginia; and the **National Agricultural Aviation Museum events** in Jackson, Mississippi.

Additional important NAAA membership benefits:

- Discounts on NAAA attendee and exhibitor fees for the 2022 Ag Aviation Expo in Knoxville, Tennessee, Dec. 5-8. It is four days packed full of sun, fun, education sessions where you can earn CEUs and tons of networking!
- **Legal services** on Federal Transportation Laws to NAAA Operator and Pilot Members.
- NAAA provides proof of distance needed to safely turn an ag aircraft to refute claims made by wind farms, towers and other obstructions. **Read more**.
- You'll receive the 2022 NAAA Membership Directory in May. It is your one-stop shop where you can find professional members that might be looking for help or offering help and a plethora of qualified allied services in the industry.
- Stay up to date on the latest issues affecting your profession through the NAAA eNewsletter, *Agricultural Aviation* magazine, our social media accounts and exclusive member resources online such as our Media Relations Kit.

NAAA is dedicated to protecting and advancing the needs of the industry by improving the public's perception of the aerial application industry and spearheading the industry's environmental stewardship and safety initiatives.

We appreciate your membership as it will help us continue to fight and win to keep aerial application as an essential service during the current global pandemic and on important issues like unfair user fees and taxes; requiring tower marking requirements; and ensure the safe integration of drones into the national airspace; and advocating that the EPA keeps a healthy inventory of crop protection products for aerial use without unnecessary restrictions. **Your membership helps us better represent your interests.**

NAAA Continues to Battle Harmful 5G Signals and Towers

NAAA continues to address aviation concerns with cellular network services that have developed over the last couple of years. In recent months the following three separate issues, all related to 5G networks, have warranted attention from NAAA.

5G Interference with Radio Altimeters

This situation has been very prominent in the news media recently. The good news is that this does not affect aerial application. The cellular industry's proposed rollout of the 5G system has caused concern primarily for the airline industry and others who need to perform category III and some category II instrument approaches. It also affects aircraft that have auto-land features. A radio altimeter, also called

a radar altimeter, is the only system that provides direct measurement of height above the ground. The frequency of 5G is close enough to what a radio altimeter uses that interference is expected. Concern was great enough that the FAA issued NOTAMs regarding Category II and III approaches. Verizon and AT&T recently agreed to temporarily limit some 5G services near key airports.

NAAA is not aware of any aerial application that uses radio altimeters. Some application aircraft do use laser altimeters to determine application height above the ground, but this is not affected by 5G.

Ligado's L-Band Spectrum 5G System's Interference with GPS

Of great concern to the aerial application industry is Ligado Networks' L-band 5G system. Ligado (formerly LightSquared) plans to use the L-band frequencies, which are next to the frequency band in which GPS operates. Ligado's 5G technology would interfere with aviation and other GPS receivers when the receivers get close to a Ligado 5G tower. A study by the Department of Transportation revealed that most non-IFR-certified GPS equipment, such as that used for general aviation, would experience interference at close to a mile from a Ligado tower.

As early as **May 7, 2020**, and as recently as **July 15, 2021**, NAAA has been reporting on efforts to prevent Ligado from moving ahead. Last week, NAAA participated in an aviation briefing for the National Academy of Sciences (NAS) committee responsible for conducting the independent technical review of the Federal Communications Commission's decision to authorize Ligado to develop a network in the L-band radio spectrum. Agricultural aviation was used as a case study on how Ligado's proposed network will negatively impact non-certified GPS receivers.

NAAA provided an overview of how agricultural aviators rely on GPS for all facets of an application mission, ensuring every pass is precisely made. The NAS was also briefed on the airspace utilized by agricultural aircraft, in particular the fact that they would operate well within a 250-foot radius around any tower in or adjacent to an application site. Ligado has designed its system to minimize interference outside the 250-foot radius to its towers but falsely assumed that no aircraft commonly operate within 250 feet of towers. NAAA corrected the record for the NAS committee on this matter.

NAAA also provided the NAS committee with some figures for how important the aerial application industry is to the U.S. food supply and the environment. These figures included that:

- Aerial application treats 127 million acres, or 28%, of U.S. cropland.
- The speed, timeliness and precision of aerial application protect 27.4 million acres of wildland from being converted into cropland annually.
- The aerial application industry adds $37 billion to the U.S. economy for just corn, soybean, wheat, cotton and rice crops.

A video of the committee meeting in which NAAA spoke can be found **here**. Scroll to the bottom of the page to find the 1/20/22 committee meeting. Dr. Scott Bretthauer, NAAA's director of education and safety, spoke on behalf of the aerial application industry and his comments may be found starting at the 2:28:48 point.

Obstruction Issue Caused by 5G Towers

A separate but equally important issue to agricultural aviation related to the growing 5G network is the need for more towers to support the 5G system. To transmit more data faster, 5G uses higher frequency radio waves that have a shorter physical range and thus require more tower locations. To counter this safety concern, NAAA continues to stay in contact with the FAA regarding publishing the Notice of Proposed Rulemaking (NPRM) on tower marking between 50 and 200 feet. The expected date for the NPRM continues to be pushed back.

NAAA is pursuing action through federal legislative representatives to put pressure on the FAA to act on this important safety issue. House Transportation & Infrastructure Committee Ranking Member Sam Graves (R-Mo.) is pressuring the FAA to expedite its completion of the tower marking/logging rule. In a Sept. 28, 2021, letter to the FAA, Congressman Graves reminded the FAA in no uncertain terms that the FAA is "blatantly ignoring this congressionally directed and long-overdue safety-critical rulemaking."

Unpacking CropLife America's Research on Consumers' Perceptions of Pesticides

In January, CropLife America (CLA) shared findings from a series of consumer listening sessions conducted in 2021 to see how various messages aimed at fostering a better understanding of pesticide use registered and find ways to better communicate with the public on pesticide issues. The research firm Povaddo conducted the public opinion research on behalf of CLA and the American Seed Trade Association, building upon previous focus group research CLA commissioned in 2019 that explored current perceptions around pesticides.

Understanding that most people are on the fence or have unfavorable attitudes about pesticide products and that there is a dearth of positive stories about pesticides in the media, the objective of the new round of research was to determine how to better communicate with elected officials and the public about agriculture and pesticides. Povaddo conducted 12 focus groups with 96 participants across three cities, first to listen to concerns and perceptions and then to see how participants would respond to messages crafted around the themes that pesticides are sustainable, necessary and innovative.

Message 1: "Pesticides contribute to sustainable agricultural practices."

The first message the focus group participants considered is that "Pesticides contribute to sustainable agricultural practices." That statement was buttressed by supporting statements about no-till farming and cover crops:

1. **Pesticides support sustainable agricultural practices by enabling farming operations that improve soil erosion, conserve water, and reduce fuel, such as no-till farming.**
2. **The use of cover crops is another pesticide-enabled farming practice that contributes to sustainable agriculture.**

Povaddo Director Wendy Lawrence said that most participants responded favorably to messaging about no-till farming and cover crops. Povaddo backed the aforementioned supporting statements up by citing data from trusted sources and using terms like "low residue" and "short-lasting herbicides." The focus group participants learned that no-till farming reduces soil erosion by about 90% and achieves dramatic fuel and energy savings. Quantifying the energy and carbon savings through comparisons to car emissions and the energy used to power homes also hit home with participants. With cover crops, the participants were informed that they mitigate soil erosion, reduce runoff by 80% and improve soil structure.

Takeaway: When promoting pesticides' roles in contributing to sustainable agriculture, it is important to make strong correlations between the benefits of the practices and pesticides' specific roles in enabling them, Povaddo counseled.

Message 2: "Pesticides are necessary."

Povaddo tested three messages to support the premise that "pesticides are necessary":

1. **Farmland is shrinking.**
2. **Without pesticides, farmers' businesses will be threatened.**
    - ***Crop yields could decrease by 70 to 80% without pesticides, and decreased crop yields that would occur without pesticides could put many farmers out of business.***
3. **Pesticides are important for feeding the world.**

Lawrence said that 2 out of 5 participants reacted positively to the message that pesticides are necessary because farmland is shrinking and 1 in 5 reacted negatively. Most people responded positively to the supporting messages related to farmers' businesses being threatened without the availability of pesticides. The idea of decreasing crop yields struck a chord, even with people with a pessimistic view of pesticides, Lawrence said. The winningest message by far, though, was one that remains timely and topical: *"Food demand and prices are increasing, affecting the world's poorest."*

However, Lawrence cautioned that while that message resonates now with consumers who have seen the effects of rising inflation and shortages of consumer goods firsthand, it could be a temporary phenomenon. Consumer attitudes may change as the challenges we face continue to evolve. If things get back to normal, saying pesticides are necessary to help the world's poorest often is considered a weak message. "Feeding the world" and "Making food more affordable" did not resonate with focus groups in 2019, for example.

Takeaway: When framing arguments around the idea that pesticides are necessary, Povaddo recommends using messages that are timely and appropriately empathetic.

Message 3: "Innovation and technology in pesticides move farming and society in the right direction."

Two of the statements offered to bolster the theme of innovation and technology were:

1. **Innovations increase productivity and reduce agriculture's environmental impact.**
2. **Innovative pesticide products allow farmers to use fewer, more targeted pesticides.**

Focus group participants liked hearing that digital tools help reduce greenhouse gasses and pesticide water runoff. Phrases such as less toxic, using the smallest amounts possible, taking a targeted approach/making targeted applications, and farmers only using pesticides as a last resort (integrated pest management) registered well with participants.

Takeaway: Focusing on positive change within the pesticide industry, including new, modern innovations and technologies, is highly recommended, Povaddo advised.

In addition to written messages and supporting information, the focus group participants watched a video of a farmer describing his farming practices, including his use of pesticides. The combination of video and narrative content had a powerful effect, Lawrence stated. Sharing personal stories impacts what people think about pesticides.

CropLife America will be sharing additional insights from its public opinion research in the coming weeks.

Supreme Court to Hear Case Questioning Reach of Clean Water Act

The U.S. Supreme Court will once again decide the scope of the Clean Water Act (CWA) after granting a petition to determine whether the U.S. Court of Appeals for the 9th Circuit "set forth the proper test for determining whether wetlands are 'waters of the United States'" under the CWA. The court issued its decision Jan. 24.

The justices said they will hear an appeal from Chantell and Michael Sackett, a couple from Idaho entangled in a 15-year-old battle to build a house on land that federal regulators say is protected wetlands. The Sacketts won a 2012 Supreme Court ruling in which the court ruled that they could challenge the EPA's compliance order requiring restoration of the purported wetlands.

Last August, the 9th Circuit issued a decision affirming the EPA's wetlands determination. The Sacketts filed a new petition seeking a review by the Supreme Court of the court's fractured *Rapanos v. United States* ruling dating back to 2016. The fractured 4-1-4 decision in *Rapanos* interpreted the term "waters of the United States" as covering "relatively permanent, standing or continuously flowing bodies of water" that are connected to traditional navigable waters, as well as wetlands with a continuous surface connection to such waters. Justice Kennedy's opinion defining covered waters as having a "significant nexus" to "navigable waters" has remained open to judicial interpretation and considerable controversy. Some regulations included water features such as intermittent streams, playa lakes, prairie potholes, sloughs and wetlands as "waters of the United States."

The EPA urged the court to deny the Chantell and Michael Sackett petition, citing the lack of conflict in the Circuit Courts of Appeals. With that said, the Sacketts have the support of 21 states and the U.S. Chamber of Commerce. Ultimately, the court could weigh in on what Congress intended for the Clean Water Act's reach, which could in turn limit the EPA's authority. The Supreme Court is expected to hear arguments in Sackett v. EPA next term.

Aerial Applicators' Growing Role Videos Available for Member Use

You have seen **NAAA's 2021 documentaries** commemorating the industry's 100th anniversary. Now NAAA members can share the industry's legacy after a century of agricultural aviation themselves by downloading all three versions of NAAA's "Aerial Applicators' Growing Role: 100 Years of Aerial Application" video series to play at events such as school or club presentations, community fairs and air shows.

NAAA's documentary is available in three lengths:

- **Full-length extended version** (19 minutes)
- **Consumer version** (9 minutes)
- **Trailer** (2 minutes)

The download versions are only available to NAAA members. Downloading the videos avoids potential glitches that can occur if the documentary is being streamed for an audience through a Wi-Fi or mobile hotspot connection.

To download the videos, follow the download instructions at **AgAviation.org/growing-role-downloads**. You must log in with your member username and password to access this webpage.

Airworthiness Directive Issued on Model UH-1H (Huey) Helicopter Drive Shafts

The FAA is adopting a new airworthiness directive (AD) for certain type certificated Model UH-1H restricted category helicopters. This AD was prompted by multiple reports of failure of the main driveshaft. This AD requires establishing a limit to replace certain main driveshafts and a one-time and repetitive inspections of the main driveshafts. NAAA reported on the proposed AD in the **April 8, 2021 NAAA eNewsletter**.

The AD may require action before further flight after its effective date. This AD is effective Feb. 25. The entire AD is available **here**.

Proposed Airworthiness Directive on Bell 205 and Related Helicopter Models' Tail Boom Spar Caps

The FAA has proposed a new airworthiness directive (AD) for certain Bell Textron Inc. Model 205A, 205A-1, 205B, 210, 212, 412, 412CF and 412EP helicopters with a specific part-numbered tail boom left-hand fin spar cap installed. Reports of cracked spar caps prompted this proposed AD. It would require inspecting each spar cap and removing the spar cap from service depending on the inspection results.

Several Bell alert service bulletins (ASB) were issued on April 15, 2020. There are differences between this proposed AD and the alert service bulletins. To view the proposed AD or to submit comments, click **here**. Comments are due by March 7.

The 205 is the civilian version of the UH-1 (Huey) military helicopter.

Future of Leaded Av Gas Uncertain

In mid-January, the EPA released a letter addressed to several environmental groups and one county in California stating that the agency now intends to develop a proposal regarding whether lead emissions from piston-engine aircraft cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare. The EPA plans to issue a proposed endangerment finding later this year. After evaluating comments on the proposal, the EPA plans to issue any final endangerment finding in 2023. To read these letters, click **here**.

Although the automotive industry has been able to move away from leaded fuel by using fuels such as ethanol, the same fuel transition cannot be as easily accomplished with aircraft. Adding ethanol to avgas could lead to vapor lock, cause corrosion, possibly introduce water into the fuel system and reduce the energy content of the fuel. The EPA has in the past accepted the case for continuing to use lead in aviation fuel as it is necessary for the safety of flight with gasoline-powered engines. NAAA insists on safety first for aircraft operations that depend on leaded aviation fuels and will comment as such to the EPA.

An endangerment finding could result in the elimination of leaded avgas. There has been concern about lead in aviation fuel since the 1980s when lead was removed from automotive fuel. While no good solution has been previously found, a new unleaded fuel has been developed. NAAA reported in the **July 29, 2021 eNewsletter** that the Federal Aviation Administration formally awarded a supplemental type certificate (STC) to General Aviation Modifications Inc. (GAMI) for an unleaded 100-octane avgas called G100. The list of **approved engines** has been greatly expanded, with more engine approvals expected in the spring of 2022.

EPA Announces Endangered Species Act Protection Policy for New Pesticides

On Jan. 11, the U.S. Environmental Protection Agency (EPA) reversed decades of practice by announcing a new policy related to Endangered Species Act (ESA) provisions. From now on, before the EPA registers any new conventional pesticide active ingredient (AI), it will assess the potential effects of the AI on federally listed threatened or endangered species and their designated critical habitats and initiate ESA consultation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service where appropriate.

Prior to this announcement, the EPA did not consistently assess the potential effects of conventional pesticides on listed species when registering new AIs. This policy often resulted in litigation for the EPA. The agency hopes the new policy will reduce ESA litigation and improve the legal defensibility of new AIs. If the EPA determines that jeopardy or adverse modifications to an endangered species are likely, it will only make a registration decision after adequate mitigation measures are in place.

The EPA is also continuing to explore applying these new ESA approaches to new biopesticide AIs and new antimicrobial AIs. Additionally, the agency is currently developing a detailed work plan to outline additional improvements to further the agency's compliance with the ESA, including more stakeholder engagement opportunities.

NAAA Comments on Overwatch Aero LLC Drone Petition for Relief from FARs

In January, NAAA submitted comments on Overwatch Aero LLC's petition for relief from specific parts of Federal Aviation Regulations (FARs) 14 CFR § 61 and 91 to operate drones heavier than 55 pounds outside of TFRs and beyond active emergency flights. Because the drones are heavier than 55 pounds, they do not operate under FAR Part 107—regulations for commercial drones under that weight. Overwatch Aero had to request relief from the FAA to be exempt from parts of FAR Part 107 to operate. While requests from drone companies for relief have become routine, NAAA continues to comment against parts of the requests it believes make the airspace less safe for low-altitude manned aircraft.

NAAA's comments oppose requests for exemptions dealing with airworthiness and maintenance and reiterated that the requirements for heavy drones outside of FAR Part 107 should be identical to those of manned aircraft. NAAA's comments may be viewed **here**. If you would like to view the petition for relief, click **here**.

Update Your Information for 2022 Member Directory

Have you moved or changed employers since you renewed your NAAA membership? Allied companies, have you reviewed your company description lately? Ensure your listing in the 2022 NAAA Membership Directory is correct today by logging into your account. If any information has changed, please let us know right away. You can provide your information by:

- Updating your information at **AgAviation.org**. Log in using your username and password and update your information under My Profile.
- Emailing your changes to **information@agaviation.org**.
- Responding to the letter or email that you will receive in a couple of weeks.
- Faxing your changes to (202) 546-5726.
- Calling the NAAA office at (202) 546-5722.

Updated information was due by Jan. 25 to guarantee accurate inclusion in the 2022 NAAA Membership Directory.

We All Have a Telling History: Use Yours and NAAA's Materials to Broadly Communicate Agricultural Aviation's

By Andrew Moore, NAAA CEO
If you are an active citizen in the world of aerial application, don't be a static audience member during this epic centennial event. Take the stage with us and bring out your inner thespian as we enunciate the gospel of agricultural aviation to the public.

History is not just documenting famous or infamous people, times and events. We all have a history—a story to tell about ourselves that can contribute to the next and future generations' betterment. One could also believe that sharing our history is one of the meanings of life—to improve and evolve our world by sharing the key to living a good life and sharing the hazards and obstacles that may hinder such living.

NAAA has reached the climax in the centennial epic of sharing our industry's history to the public, which of course was Aug. 3, 2021. But just because the official centennial anniversary date is behind us doesn't mean all efforts to share the importance of our industry to the public have passed you by. We will be celebrating the centennial of agricultural aviation for an entire year. We continue to reach out to policymakers, our brethren in the fields of agriculture and aviation, to the trade press, to the public and to the national news media. We continue to share our history of improving the cultivation of food, fiber and bioenergy consumed globally and how we've learned from harrowing experiences and evolved technologically to fine-tune our craft, use less product to cover more acres and better care for Mother Earth. We are continuing to use all types of media to educate the public—three different length video documentaries, a comprehensive book of our history, social, print, trade and news media releases and a special website, **AgAviation100.com**, to share the 10-decade story of ag aviation and we will continue to due so through July of 2022.

If you are an active citizen in the world of aerial application—whether an operator, pilot, crew member, service-parts-equipment provider or related tangentially to the industry in another way—don't be a static audience member during this epic, year-long centennial event. Take the stage with us as we enunciate the gospel of agricultural aviation to the public. Inform your local television stations, newspapers and radio stations about the industry's 100th anniversary, even if it is by simply directing them to **AgAviation100.com**. On that site, there is a "**Get Involved**" tab with a draft press release about the 100th that discusses the importance of the industry, its progressive evolution, and directs readers to **AgAviation100.com** to learn more. Feel free to cater that press release to your own operation and experience and send it to your local news outlets.

You can also brush up on the ag aviation script about the importance of ag aviation, environmental safeguards that are common practice today and other industry talking points on NAAA's media relations kit webpage that may be found **here**.

The media relations kit also includes suggestions on how to best communicate to the media and public when espousing ag aviation's significance. If you don't feel comfortable communicating directly, no worries. NAAA staff and an assortment of ag aviation ambassadors can be used as understudies and take over that role, but do make sure the public and news media in your area are informed of our centennial milestone to maximize the value of this pivotal once-in-a-lifetime event.

Don't forget, we all have a great story to tell about this industry. Whether it is how one got into the industry; the training to fine-tune ag aircraft and the application equipment; how ag aviation provides to local employment and the local economy; or how after five generations, our technology and experience are such that we produce more per acre, showing that our care for the environment continues to progress —all of these anecdotes are both important and fascinating to public audiences.

It's up to us all to tell the story to continue this industry's remarkable legacy. And again, just because the official anniversary date has occurred, our centennial lasts a year and you can still contribute plenty. Please join the ag aviation cast for this once-in-a-100-year performance that is leading to glowing public reviews and will continue to do so throughout the year.

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 has been publishing excerpts from *Agriculture's Air Force* and will continue 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**.