WVCA Drone Fleet

NASCA

October 2022

Origins of the Program

- A Conservation Services committee met in 2020 to discuss using drones to help achieve the Agency's mission.
- Initial discussions began in 2021 with the WV Division of Forestry about their drone program.
- After researching practical uses of drones, liability, cost, and more, I drafted a memo and sent it to our WVCA Executive Director, Brian Farkas.

How the Agency can benefit from drones

- **Watershed**: Monitoring flow into the dams or slips, seeps or landslides over time; using before-and-after photos to show changes.

- Building maps of dams or watersheds through modeling

- Stream survey work; EWP work (large, inaccessible areas can be viewed aerially and photos help in reconstruction); general dam inspections, closer inspection of a dam's riser, flood pool, etc.

How the Agency can benefit from drones

- **Conservation Services**: Verification of agricultural best management practices.
- Before-and-after photos of practices before and post-completion; recordkeeping purposes.
- Aerial images can be used to help design new farm plans for cooperators.

How the Agency can benefit from drones

- **Communications**: Simply put, it has improved the quality and the look of our promotional videos and photos. The courtesy footage in the Conservation Matters video on our homepage (www.wvca.us), as well as the 2021 State Farm Tour footage and CREP video footage shot by WV Division of Forestry staff, is proof.

- Video 1 (2022 State Farm Tour)

Purchasing process

- In the fall of 2021, Brian decided to move forward on purchasing drones for Agency use.
- We reviewed and sought input from various sources (CTL, Div. of Forestry, potential vendors, industry experts) about which drones would suit our different needs, then we made our decision.
- Worked with our Agency Purchasing Division earlier this year to solicit bids and make the purchase. Advexure was the winning bidder.

Our Drones





- Video 2: High Tunnel Video example:





Our Drones







Certification Process





- Practiced flying at Mason-Dixon Park with Rodger Ozburn and studied the 2022 ASA Remote Pilot training book.

Certification Process



- Passed test on Aug. 17th. Received a “Temporary Airman Certificate” the same day. Received official Airman Certificate number in October.

Certification Process

- On Sept. 29 and 30, 12 WVCA staffers participated in Part 107 classroom training at the WVU horse farm at Reedsville and also received flight training.



Certification Process

- **What we studied**:

- Rules and Regulations
- National Airspace (reading maps)
- Weather
- Loading and Performance
- Operations

- WVCA participants will take the Part 107 exam when they are ready. 60 questions; 70% is passing.

Safety is paramount

- **What was learned**:

- Be constantly wary of weather, wind and surroundings.
- Check airspace before flying. Use the Aloft app on the iPhone.
- Know what people or property may be in the vicinity when flying.
- Be wary of birds. Seriously. Also, always be mindful of how high you fly and maintaining visual line of sight.

Next Steps

- **Develop Standard Operating Procedures (SOPs)**:

- Emphasize safety checklists before flying.
- Drone-sharing policies and procedures.
- Maintenance procedures for drones.
- Consider purchasing service that monitors our flights (such as AirData).

Upper Decker No. 1 flyover



- Video 3: Upper Deckers No. 1 flyover

Questions?

