AggieAir Is Extending Its Wings | Utah Water Research Lab

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This week marks another milestone for AggieAir™, the UWRL remote sensing research unit that pioneered the development and use of small unmanned aerial systems (sUASs) for collecting and processing high-resolution, scientific grade imagery and other data. The Federal Aviation Administration (FAA) has granted the AggieAir program two of their largest Certificates of Waiver or Authorization (COAs) to date. The FAA grants COAs to public operators for specific UAS activity only after extensive and comprehensive operational and technical review. These new COAs allow AggieAir open access to a vastly larger area than ever before. One COA covers the entirety of Cache Valley, from the Idaho border to Paradise (excluding urban and mountainous areas), and the second is just over the hill in Box Elder County, stretching from the Idaho border to the Great Salt Lake, both at an elevation of 3000 ft. above ground level (AGL).

By comparison, AggieAir’s current ongoing COA in Cache Valley allows operations of up to 3000 ft. AGL but is otherwise similar to the constraints placed on small drone operators who are authorized to fly under the FAA’s Part 107 Operating Rules. These allow qualified drones to fly only within a 0.8-mile radius at or below 400 ft AGL.

This expanded freedom opens up a multitude of new opportunities:

1. The current COA for the test flight operation center has been near the Logan airport, so traffic in the airspace can sometimes interrupt flight scheduling. The new COA significantly reduces these restrictions on AggieAir flight operations.
2. The team can now establish other testing operations locations closer to the university, saving travel time and expense.
3. AggieAir’s image acquisition and processing capabilities can now be tested and refined on new and varied ground targets inaccessible within the current COA area (such as over water at Cutler Reservoir). This wider range of testing will mean the aircraft, payload, and pilots will be better prepared for every mission going forward.
4. The new COAs open up additional possibilities for research collaborations. AggieAir is already integral to a wide range of water resources, agricultural, and natural resources research at the university and beyond.
5. The COAs grant AggieAir the largest area and height permissions of any COA for any public operator in the US. Because of this, other FAA-sanctioned test sites (Nevada and Deseret UAS) will be partnering with AggieAir to accomplish their own research objectives.

As AggieAir’s horizons expand, so does the scientific impact of our small but powerful sUAS systems.

Discover more at the AggieAir website.