

EDCO UAS Proposal: Frequently Asked Questions

1. Why do we need a test area for drones?

Unmanned aerial systems (UAS or drones) are the future of aviation, but there is a critical shortage of areas where they can be tested safely. One of the few high-growth areas in aviation—or any industry—is being constrained by an inability to test the vehicles as they are developed. There are lengthy and costly delays as manufacturers wait for open testing slots.

Special certificates can be obtained for test purposes, but they are costly and time consuming. A better solution is for the country to designate more test areas where drones can fly safely away from other traffic.

2. Where is the proposed test area located?

It is an area roughly 55 miles wide by 90 miles long in central and eastern Oregon. On the north, it is roughly bounded by the small community of Brothers on the west and to a point near the town of Burns on the east. The most southwesterly point ends roughly 35 miles north of Lakeview, with the southern border extending east toward Idaho.

(See the map attached to the main proposal.)

The majority of the test area overlies Harney and Lake counties; small parts of it touch Deschutes and Crook County. The area corresponds to the Juniper Military Operations Area (MOA), which is shown on all aviation maps. Underlying the airspace is rural, lightly populated, and mostly public lands.

We will ask the FAA initially to give us a smaller part of the area for testing when it is not in use by the military. The final decision on the size of the area is up to the FAA.

3. Why are you asking for support from local businesses and governments?

The proposal will require the FAA to interpret some of its rules differently than it has in the past. Before taking on this important task, the congressional delegation wants to ensure that there is strong regional support.

4. What is the short-term benefit to Central Oregon for having a drone test area?

Short term, we expect ten to twelve companies to take advantage of the test area. Test crews would come here every weekend or so on a rotating basis. This would be a nice increment for the region's lodging and restaurant businesses. Companies are likely to rent spaces from which to stage flights.

Local testing will create exposure and business opportunities for the half-dozen local companies (Lancair, Outback Manufacturing, Windward Performance, Hatch Product Development, etc.) already working in the field. It is likely to bring related companies such as those that train crews to fly drones.

Engaging the FAA on the national level will help establish Central Oregon as a player in the drone field.

5. What is the long-term benefit to Central Oregon for having a drone test area?

Market size is illustrated by these numbers: just 5 percent of the R&D drone business would bring \$75 million annually to the region.

At the minimum, we expect companies to set up at least satellite operations here. Some companies have expressed interest in relocation should a test area be approved.

The test area is conceived as a “seed” initiative—get drone companies into the area and expose them to local capabilities: the design, engineering, and production capability of the workforce we have in aerospace and specialty manufacturing.

From this starting point, we will develop a relationship with the drone vendors that would lead them to come here when they expand or begin their next project.

6. Will seeking or having a drone test area cost the region or state any money?

No. The only cost is the time of the individuals involved--mostly volunteers—and the time of EDCO staff and the staff of our congressional delegation.

7. Are there incentives being offered to create the new test area?

No, designation is largely a logistical and administrative effort. No state or local incentives have been discussed or pursued at this point.

8. Wouldn't this help just a few companies?

The region already has half a dozen companies involved in drones, and this could expand that base. Over time, this industry could be the source of a good number of jobs paying higher than average wages.

9. Isn't this a very specialized market?

For now, but over time it will be huge. In addition to civilian and military use in the U.S., most other countries will also deploy drones. Developing countries cannot afford manned aircraft for routine uses. Drones are smaller and much less expensive to operate. It is

likely that drones will make up a huge component of general aviation use in the developing world.

Unmanned systems are also being developed for land, surface water, and undersea applications as well as for aviation. A local company, Lancair, supplied components for undersea vehicles used in monitoring the BP well blowout in the Gulf.

10. Are drones used only for military purposes?

No. Drones can be used for any number of civilian purposes, from border patrol to law enforcement to monitoring pipelines, canals, power lines, and other infrastructure. They can be used to spot wildfires, to provide cell communication for emergencies, and to provide real-time photos of dangerous activities. For example, drones could give ground crews notice when a wildfire changes direction and give crews time to escape.

Technology being developed to fly drones will also lead to products that will improve safety for pilots of small planes, such things as: navigation, seeing and avoiding other traffic, flight in poor weather conditions, and in safer ways to take off and land.

In the military, drones are used primarily to spot ambushes and roadside bombs; unmanned ground vehicles are used to defuse bombs. A special version of a drone is used to strike combatants planning attacks on U.S. soldiers.

11. Would this help only Bend?

All of the cities in Deschutes, Crook, and Jefferson County have facilities from which drone makers might stage their local operations, and all have good highway access to the test area. Companies coming from California might find it convenient to set up in Lakeview or Klamath Falls. Idaho companies might use Burns. Christmas Valley, just outside the military area, could benefit. Opportunity in the tri-county region exists for all communities.

12. Does Central Oregon have advantages over other West Coast testing areas?

Yes. Most test areas are too crowded to accept more testing. The new area would help satisfy the pent-up demand known to exist for Northwest drone manufacturers.

Also, some of the other areas are so remote that there are few nearby amenities—or even places to stay. The Juniper test area represents a rare combination. It is remote from air traffic and large population centers but it is within an hour's drive of Central Oregon's numerous high-quality amenities.

13. Will the drones take off and land at airports or otherwise affect local airport operations?

No. All operations will be conducted within the military operations area. Ground operations will be in or adjacent to it. The area is at least an hour away from any incorporated city.

14. Will airline traffic be affected?

No. The area is so remote from major airports that airliners will be flying 10,000-20,000 feet above the ceiling of the test area. Drones will not fly above 18,000 feet until the FAA develops a way to separate them from airliners.

15. Will general aviation be affected?

Small planes will have to go around the area designated for testing, but most routes take them around the current military operations area anyway. We expect to use only a small part of the overall area, and only for two days a week.

Because the region is so remote, the number of actual flights affected will be minor. The detours themselves will not be significant for the vast majority of flights.

16. Do pilots support this idea?

Pilots generally oppose restrictions on airspace because they face many limitations around large cities. However, the proposed test area is remote and would affect only one or two general aviation aircraft flights a day, a couple of days a week.

As we have talked with more pilots, we have gained more support. They understand that a strong pilot community requires a strong aviation community. Plus, many pilots either work in the industry or have their own businesses. They understand the need to diversify the region's economy and create more jobs.

17. Will this interfere with wind farms, solar farms, or other possible rural industries?

No. Initially, we plan to restrict all flights to 500 feet or higher, so they will be well above any ground structures. If low-level flights are approved later, care will be taken to avoid any sensitive areas, wherever they may be.

18. How are you seeking support?

We are reaching out to as many governments in the region as we can, meeting with local pilot groups, briefing the local representatives of the region's congressional delegation,

and informing the public through local media. We will continue to expand our local outreach and are happy to talk with other interested parties.

19. Why do you want to use a military area?

The primary reason is that the area is large, remote, largely unpopulated, and mostly over public lands. The military area itself has well-defined boundaries that are on every aviation chart, navigation routes go around the area, and most pilots routinely avoid it.

The area would only be used when the military is not using it.

20. Won't private use of the area cause a problem for the military?

No. When the military needs the area, they control the area. End of story. We ask to fly drones only when the military is not using it, which is typically every weekend.

21. Do you have military approval?

When the military is not using the area, the airspace reverts to FAA control. Because drone flights will never overlap with military flights, approval comes directly from the FAA.

22. How many days will the drones fly each week?

Drones fly when the military does not. Generally the military flies Monday-Friday, so drones will likely fly two days a week. If the military flies more days, less UAV testing will happen. If the military flies fewer days, drones fly more.

Scheduling of drone flights will be on a first-come, first-served basis by a contractor hired and paid for by the private companies using the test area. This is how it is done elsewhere.

23. What happens if a drone crashes?

The owner of the vehicle will be responsible for any damage caused by any flights. The vehicles are generally small and light and carry little fuel. Because of the sparse population, it is unlikely that a drone will cause any significant damage.

24. What are the environmental impacts?

The typical noise signature for a drone on a mission is no louder than a large insect buzzing.

Drones are designed to fly several thousand feet above the ground, typically for some type of surveillance. They are designed to be quiet. Because they are smaller and slower

than piloted civilian and military aircraft, the use will be more benign than routine air traffic that has overflowed the region for more than sixty years. Most of the traffic today consists of military jets doing high-speed maneuvers.

Initially, we plan to restrict all flights to 500 feet or higher. We foresee no problem with ground birds or other wildlife. If low-level flights are approved later, we will work with the proper authorities to avoid any sensitive areas.

Drones can be launched by hand, off the back of trucks, or from small stretches of unimproved land, so launch and retrieval impact will be minimal. Enough private land exists in the area that we do not expect any problems finding suitable launch sites.

25. Why do we need to act quickly?

Within perhaps four to five years, the technology may exist to safely integrate drones into the national airspace to fly with regular aircraft. At that time, the need for special test areas will be reduced. In the meantime, there is a critical need. If we can establish an industry around today's need, we will create a competitive advantage that will last into the future.

If we have drone manufacturers already here when the integration problem is solved, they will likely still use remote areas nearby for testing. They are less likely to come here from somewhere else at that point.

26. Does anyone oppose this project?

A few pilots have expressed concern about access, but they have been generally satisfied when we walk them through the proposal with maps in hand. They can see that most flights south and east of this region will avoid the military area without any special effort—the navigation system was designed that way.

A few people have asked about environmental impacts, which we believe will be minimal to non-existent.

If we get FAA approval, then we can work with the proper authorities to ensure that we stay well above, or go well around, any sensitive areas.

27. What are the next steps?

We expect to touch bases with all the affected counties by the end of the year, 2010. Assuming we continue to garner support, we intend to ask our congressional delegation to take the matter formally to the FAA early in 2011.