

Land Surveying with Drones

Unmanned Aircraft Systems (UAS), such as drones, have become a tool land surveying and photogrammetric mapping professionals utilize to increase photo mapping capabilities and improve their ability to measure the surface of the Earth.

Well suited and complementary to traditional surveying technologies, UAS devices have allowed for hobbyists and certified operators to enter into the land surveying and photogrammetry industries and provide innovative services. However, when a new technology is introduced to a long-standing public service, individuals and organizations may overlook industry regulations and the necessary professional licensure to legally provide services to the public.

In this brochure the Oregon State Board of Engineering and Land Surveying (OSBEELS) aims to outline the long-standing regulations and professional licensure requirements for professional land surveying.



Useful Resources

Federal Aviation Administration – UAS
faa.gov/uas

State of Oregon Dept. of Aviation
oregon.gov/aviation

Oregon State Board of Examiners for Engineering and Land Surveying
oregon.gov/osbeels

Oregon House Bill 4066 – Definition of an UAS
bit.ly/OHB4066

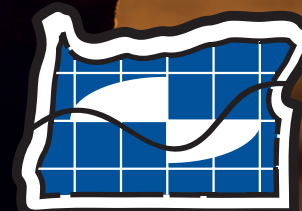
Oregon Administrative Rules 820 – Engineering and Land Surveying
bit.ly/ORAR820

Oregon Revised Statute, Chapter 672 – Professional Engineers; Land Surveyors; Photogrammetrist; Geologists
bit.ly/ORRS672

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Unmanned Aircraft Systems & Land Surveying Regulations



OSBEELS

How the state of Oregon defines Land Surveying and Photogrammetry

The OSBEELS uses Oregon Revised Statutes (ORS) to determine how it defines land surveying and photogrammetric professions and services.

A professional land surveyor or registered professional land surveyor is defined as an individual who is registered and holds a valid certificate to practice surveying in the state of Oregon. In order to offer professional land surveying services in Oregon you must be registered with OSBEELS.

Photogrammetric mapping is defined as the process of evaluating and measuring land through the interpretation of aerial and remote sensing photographic images to determine topography, area, contours and land features.

To view additional examples of photogrammetric mapping and land surveying work as defined by the state of Oregon, refer to ORS 672.002, ORS 672.005 and ORS 672.007.

Professional Areas of Services

Land surveyors and photogrammetrists provide surveying and photogrammetry services to individuals, organizations and land owners as permitted by possessing a professional license from the state of Oregon. UAS operators providing similar photogrammetry services without the proper licensure, knowingly or unknowingly, could potentially receive fines or face further legal action. The below services are potential areas of infraction for UAS owners:

- Photogrammetric mapping
- Topographic mapping
- Volume computation
- 3D mapping
- Boundary surveys



How Licensing Protects the Public

Licensed mapping and surveying professionals adhere to certain professional and quality standards. A licensed profession ensures that an individual will provide a higher quality of work and be held accountable for how they conduct themselves. These regulations are in place to safeguard the public and ensure quality of service.

Interested in Becoming a Professionally Licensed Photogrammetrist?

UAS operators and interested individuals are encouraged to visit the OSBEELS website at [Oregon.gov/OSBEELS](https://oregon.gov/OSBEELS) to learn about the minimum requirements an applicant must meet to be considered for registration as a Professional Photogrammetrist in the state of Oregon. To be considered, applicants must hold the following qualifications:

- An approved combination of education and experience, as detailed in Oregon Administrative Rule 820-010-3010.
- Receive a passing score on the National Council of Examiners for Engineering and Land Surveying (NCEES) Fundamentals of Land Surveying examination.
- Receive a passing score on the Colonial States Boards of Surveyor Registration (CSBSR) Photogrammetry examination.

Interested in Becoming a Professionally Licensed Engineer or Land Surveyor?

- For Engineer qualifications view: [OAR 820-010-1000](#)
- For Land Surveyor qualifications view: [OAR 820-010-2000](#)