

## Sailing Organizations & Drones: What You Need to Know

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Understanding how to use drones for your sailing organization and the related laws and regulations can be confusing to even those in the industry. However, nearly everyone involved agrees that the size of the drone market is growing at a steep trajectory and the innovative ways in which consumers, businesses, and sailors are taking advantage of drone technology is evolving rapidly.

**By the numbers.** Market growth and usage is exploding for Unmanned Aerial Vehicles (UAVs), also known as drones. At the end of 2017, which marks two years since drone registration began, there were more than 1 million drones registered with the Federal Aviation Administration (FAA). For perspective, there are currently only 250,000 registered manned aircraft, and it has taken more than 100 years to reach that number. The FAA projects that by 2020 there will be 7 million registered drones, with 442,000 commercial drones. The market research company Gartner estimates that in 2017 more than 3 million drones were manufactured globally, marking a 39% increase over 2016.

**Who is using all of these drones?** The majority of drones are being flown recreationally by hobbyists. However, businesses are also increasingly looking to drones to inexpensively serve as a company's eyes by gathering data, producing visual data, and going places unsafe for humans. This includes industries and applications such as agriculture, forestry, surveying, utilities, construction, mining, entertainment, photography, real estate, mapping, law enforcement, storm tracking, and insurance.

**Drone usage in the marine and sailing industry.** Sailors – many of whom have a love of new technology, the latest gadgets, and flying objects – are jumping head first into the world of drones. Most think of themselves as hobbyists and use drones to take aerial photography for fun. However, many others, especially those in the marine or sailing industry, are quickly finding commercial applications for drone use in their work life. Examples can be found in sailing publications almost daily. Impressive and spectacular drone footage online from the Volvo Ocean Race, The Americas Cup, and One Design Racing captivates and amazes viewers worldwide. Professional sailors and their coaches are using drones, drone footage, and data overlays to analyze and optimize everything including sail shape, crew position, reaction times, boat handling, tactics, strategy, and competitive performance. Cruisers are using drones to capture images of their adventures around the globe. Drones can also be an important tool for man-overboard rescues; if the sailor has a personal locating beacon, a drone can be used to pick up the signal and then hover over the sailor to aid in the rescue process.

**Limitations on drone operations.** While drone usage and technology continues to evolve rapidly, limitations still exist. Drone performance is negatively impacted by many weather conditions, including rain, snow, temperature and wind. The battery life of drones is less than 30 minutes. Add wind, and the battery life can drop in half. Most drones cannot be safely operated in wind greater than 20 knots, temperatures above 107 degrees Fahrenheit, or temperatures below freezing.

**Drones at yacht clubs and community sailing programs.** Despite these limitations, affordable, high-performance consumer drones are becoming mainstream and it is not surprising that sailing instructors, flag officers, race committee volunteers, and sailing organizations themselves, are buying and using drones in sailing organization operations and programs. Drones are being used in a variety of ways, such as instructors filming students for digital chalk talks, race committee usage, footage used to promote the club to attract new members, filming of club races to share with members and promote the fleet, and filming of development projects to share status updates with members, just to name a few.

**Is your sailing organization flying for “fun” or for “commercial” purposes?** The line between recreational and commercial usage can quickly become blurred. Nearly all of the examples of sailing organizations using drones described in this article would come under the FAA's Commercial usage definition.

- **Commercial use** of a drone is defined by the FAA as: “Flying for work, business, non-recreational reasons, or commercial gain.” This typically includes flying a drone for hire, compensation, to provide a service, or for economic benefit of an entity or person.
- **Recreational or hobby use** of a drone is defined by the FAA as: “Flying for enjoyment and not for work, business purposes, or for compensation or hire.”

For example, if a parent flies a drone for a junior sailing program, it would be considered hobbyist usage. But if a coach, employed by a sailing club, flies a drone as part of his instruction of the junior sailors, it would be considered commercial usage. While situations and usages by or at a yacht club or sailing program vary widely, it is safe to assume that most circumstances will fall under the Commercial use definition. **It is important to know which category you fall under, because the requirements for operation, licensing, registration, and insurance differ depending on if the drone is flown for recreational or commercial purposes.**

**Drone Pilot Licensing Requirements.** If a drone is being flown commercially, the pilot must obtain a "Remote Pilot Airman Certificate", which is earned by passing the FAA Remote Pilot Knowledge Test. The test is a 60 question multiple-choice exam, administered at FAA-approved knowledge testing centers and costs \$150. In addition to passing the test, the pilot must be 16 years of age and must pass TSA security vetting. There is no practical testing of a pilot's operating skills. If a drone is being flown for fun, no licensing is required. As of the end of 2017, there were 70,000 licensed, commercial drone pilots.

**Drone Registration.** At this time, registration is required for drones used both recreationally and commercially. This requirement is controversial to many hobbyists, who believe they should not have to register their drone and have brought a law suit against the FAA registration program. However, unless the federal law changes again, all small unmanned aircraft (including drones) weighing more than .55 pounds and less than 55 pounds must be registered with the FAA and marked with a registration number. Registration can be handled online on the [FAADroneZone website](#) and costs \$5.00 for a 3-year period.

**Drone Operating Rules.** Most of the primary FAA rules for drone operation apply to both commercial and recreational use. The basic rules are as follows and are further detailed on the [FAA website](#):

- Keep the drone in visual line-of-sight
- Fly at or below 400 feet
- Fly at or under 100 mph
- Yield right of way to manned aircraft
- Follow community-based safety guidelines (recreational rule)
- Fly only during the daylight or civil twilight
- Do not fly over people (it is typically permitted to fly at an angle over people or if the participants are notified they are being filmed)
- Do not fly near emergency response efforts
- Do not fly over national parks
- Do not fly over large stadiums or major sporting events (baseball, football, NASCAR, etc.)
- Do not fly from a moving vehicle, unless in a sparsely populated area (over-water is considered sparse)
- Never fly under the influence of drugs or alcohol
- Notify the airport and air traffic control tower prior to flying within 5 miles of an airport (recreational rule)
- Obtain Air Traffic Control permission to operate in controlled airspace (commercial rule)

**Drone Insurance for Commercial Usage.** While there are currently no laws requiring insurance coverage for drones, it is smart risk management to have coverage for your drone activities. Flying a drone without coverage can expose you, your assets, and your organization to significant, and potentially expensive, lawsuits and claims. You should seek coverage for the primary exposures below, the first three being the most important, the last three coverages being optional, depending on your appetite to self-insure your drone itself and related equipment. Coverage needs differ depending on if your organization **owns** the drone or contracts with a third party that owns the drone (“Owned” vs. “Non-owned” coverage).

**Recommended Drone Insurance Coverage Types:**

1. **Bodily Injury** – Liability coverage for injury to others
2. **Property Damage** – Liability coverage for damage to property of others
3. **Personal Injury** – Coverage for libel, slander, invasion of privacy, and copyright infringement
4. **(optional) Hull Coverage** – *Damage to the drone itself*
5. **(optional) Payload Coverage** – *Coverage for damage to cameras, sensors, or items drone is carrying*
6. **(optional) Ground Equipment Coverage** – *Coverage for the dedicated equipment used with the drone*

**Owned Commercial Drone Insurance Coverage.** Most commercial General Liability policies **exclude** coverage for aviation (and drone) usage if the drone is **owned by the organization**. Given this, your organization will need to purchase Commercial Drone Liability Insurance to cover you for third party Bodily Injury and Property Damage to others. You will also need to make sure you have coverage for Personal Injury (coverage for libel, slander, invasion of privacy, and copyright infringement).

**Non-Owned Commercial Drone Insurance Coverage.** If your organization contracts drone activities to an outside resource or club volunteer who owns the drone, then your organization needs to make sure that your **General Liability Policy includes liability coverage for "Non-Owned Aviation Usage."** Additionally, you should require that the person operating the drone for you meets the following standards: 1) Has the required Part-107 license (Remote Pilot License/Certificate), 2) that their drone is registered with the FAA, 3) that they carry adequate Drone Liability Insurance, and 4) that they provide you a Certificate of Insurance.

**Hobbyist Drone Insurance.** Insurance to operate a drone as a hobbyist is not required by law. However, just as in commercial applications, it is good risk management to make sure you have coverage in place. Many homeowners' insurance policies include liability coverage for Bodily Injury, Property Damage, and Personal Injury (libel, slander, invasion of privacy) to a 3rd party from use of radio controlled aircraft (which typically includes drones). There are many exceptions, so you should call your agent to find out specifically what your policies do and don't cover. Nearly all insurance policies exclude coverage if the drone is used to transport items or to provide professional services.

#### Next steps if you decide to operate a drone for your sailing organization?

1. [Register](#) your drone with the FAA
2. Get your [Part107 License/Certificate](#) if you are using your drone for anything other than pure recreation
3. When flying, always abide by the [FAA Operating Rules](#)
4. Develop **policies and procedures** for drone usage
5. Make sure you have adequate **insurance coverage** in place:
  - If you are a **sailing organization**, and your program or club is insured through [The Burgee Insurance Program](#), contact your account manager directly, or you can reach the team at [burgee@gowrie.com](mailto:burgee@gowrie.com).
  - If you are **flying as a hobbyist**, contact your insurance agent to find out if your homeowner's policy includes the coverages you need to operate a drone.

#### Additional Drone Resources & Links:

- Drone Registration at <https://faadronezone.faa.gov/#/>
- FAA for UAS at <https://www.faa.gov/uas/>
- UAV coach at <https://uavcoach.com/>
- YouTube has great videos on learning to fly/operate drones

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**Sources:** Federal Aviation Administration, Drone Authority, UAV Coach, Business Insider, Skylark Drone Research, Gowrie Group.



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