

Sailing Organizations & Drones: What You Need to Know

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Drone uptake is growing at a steep trajectory across all segments and user groups, and sailors and the sailing industry are taking notice. However, before joining in the fun, we recommend that you first gain an understanding of the related FAA regulations, industry requirements, and safety best practices.

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.

Who is using all of these drones? The majority of drones are being flown recreationally by hobbyists. However, businesses are 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 near the sailor to aid in locating the person.

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 generally 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 are highly computerized and therefore subject to the same types of intrinsic failures as other sophisticated equipment.

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. 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 and require the drone operator to be a licensed FAA Remote Pilot in Command.

- **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. Intended use, not compensation, is typically the determining factor.
- **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 free) for a junior sailing program, it most likely would be considered hobbyist usage. But if a paid employee, or volunteer, of a sailing club/organization flies a drone as part of the club's

instruction of sailors, it would most likely 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.** Failure to comply with FAA and state/local drone regulations for drone licensing, registration, and/or operating can result in significant penalties and charges including: steep fines (in the thousands of dollars), civil charges (eg, invasion of privacy), and/or criminal charges (eg, reckless endangerment).

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. 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. While the Remote Pilot Airman Certificate requires no practical testing of a pilot's operating skills, it is strongly recommended that all drone operators (licensed and recreational), get hands-on training and/or practice before operating a drone at a sailing organization.

Drone Registration. Drone registration for hobbyists has been controversial, but Congress passed a law in December 2017 requiring all drones to be registered under the National Defense Authorization Act. 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 directly over people¹
- 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)

FAA Waivers for Commercial Pilots. The FAA has an [online process](#) to apply for and receive a waiver for certain elements of the Part 107 regulations. The most commonly granted waivers are for Flying at Night (107.29) and operation in Controlled Airspaces (107.41). A list of [granted waivers](#) can be found on the FAA website. Waiver applications are submitted electronically but often take months to process.

Drone Insurance for Commercial Usage. While there are currently no federal laws requiring insurance coverage for drones, it is smart risk management to purchase coverage because drones are often excluded from liability policies. Flying a drone without coverage can expose you, your assets, and your organization to significant lawsuits and claims for bodily injury or property damage. 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 may differ depending on whether or not your organization **owns** the drone or contracts with a third party ("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 privacy², 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*

¹ **Commercial Drone Rules Part 107**, Section 107.39, Operation over human beings: Operation directly over people is prohibited unless they are "directly participating in the operation", an FAA-defined term, or "located under a covered structure or inside a stationary vehicle that can provide reasonable protection from a small unmanned aircraft." "Participants" are very narrowly defined as people directly participating in the operation of the drone.

² Verify's policies only include **Personal Injury (PI)** coverage for "Violation of Privacy Liability." There is no PI coverage for libel, slander or copyright infringement.

“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 Injury³ (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.” Flying a drone for a sailing organization would in most cases be considered “providing a professional service,” which means it is likely to fall under this exclusion.

Purchasing Drone Insurance for a Sailing Organization or for Marine Use. Drone insurance can be purchased by sailors and sailing organizations in two primary ways: 1) an episodic policy (by the hour), or 2) an annual policy.

Verify Episodic Drone Insurance. Through our partnership with [Verify](#), the leading on-demand drone insurance company, Gowrie offers you access to flexible drone insurance. Policies through Verify are purchased for a specific time window (1, 4, or 8 hours) and area (from ¼ mile to 2 mile radius circles) where you plan to fly a drone, and can be bought just prior to the time of flight. Policies are purchased using the Verify App (use invite code “Gowrie”).

Get a Verify Quote. Visit www.verify.com/gowrie (use invite code “Gowrie” when setting up your account in the Verify App).

Annual Drone Insurance Policy. Organizations looking for a broad, annual drone insurance policy can get a quote and purchase an annual policy using Gowrie’s [drone insurance portal](#), which is brought to you through our partnership with Global Aerospace.

Get an Annual Drone Insurance Quote. Visit our [drone insurance portal](#).

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](#)
3. When flying, always abide by the [FAA Operating Rules](#)
4. Develop **Policies & Procedures** for drone usage
5. Make sure you have **adequate insurance coverage** in place: www.gowrie.com/droneinsurance

Resources & Links:

- **Insurance Solutions:**
 - **On-demand Verify Insurance** (by the hour): visit www.verify.com/gowrie to learn more and download the App for a quote (use invite code “Gowrie” when setting up your account in the Verify App)
 - **Annual Drone Insurance**, get a quote online at <https://gowrie.aeroinsure.com/DTM/US/UAS/Home>
- **Gowrie Drone Insurance Team** at www.gowrie.com/droneinsurance or drones@gowrie.com
- **Drone Registration** at <https://faadronezone.faa.gov/#/>
- **FAA Guidelines for UAS** at <https://www.faa.gov/uas/>
- **Advice** on purchasing, training, and procedures for sailing organizations: www.drones4sailboatracing.com

³ Ibid.

Sources: Federal Aviation Administration, Drone Authority, UAV Coach, Business Insider, Skylark Drone Research, Verify.com, Global Aerospace, and Gowrie Group



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