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| Interpreting the part 107 rules  [Document subtitle] | Drones are Changing the World!  Think of any industry and chances are you can think of a way that an unmanned vehicle could help it. All of this created by putting a programmable mini-computer into an unmanned vehicle and power it with light weight batteries.  Lamar H. Ellis, III  Drone Education Services |

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***Foreword***

For me, my interest for drones escalated the day I saw a local news report on privacy infringement in 2014. As the drone rose from the front driveway of a multi-million dollar property, I was hooked. I saw perspectives of items I had seen all my life different from what I was used to. What I saw was revolutionary. For the next year as I pursued my interest in the technology I couldn’t believe how impactful it was. I heard a description stating that it would have the same impact as when the automobile replaced the horse drawn carriage. The uses being conceptualized ranged from home air delivery, to movie and television production, to emergency response aid, to multiple other industries too numerous to name. If you can think of an industry, chances are you can think of a way that an unmanned vehicle could help it. All of this created by being able to put a programmable mini-computer into an unmanned vehicle and power it with light weight batteries. I currently present seminars geared toward all facets of the technology. My experience is drawn from working with several start-up drone companies, presenting seminars on drone technology to various industries with a focus on real estate, published in Valuation Magazine, Appraisal Buss Newsletter, and the Atlanta Chapter of the Appraisal Institute newsletter, obtaining my Part 107 Airman Certificate, and consultant for several companies utilizing drone technology.

**INTRODUCTION**

As Drones, also known as UAVs and UASs become more integrated into society, safety and security have become main concerns. They are considered to be somewhat of an intrusion into everyday lives with imaginations running wild. They have great potential to be of huge benefit but they also have potential to do harm. I agree with the new rules being put into place on the commercial operations of drones. However, I believe that as the industry grows an understanding of the airspace will become essential to flying a drone for either recreational or commercial use. Do you permission from the Federal Aviation Authority (FAA) to fly a drone? The answer is NO! If you are flying a drone for fun or recreation you do not need permission but you should at least know the C.F.R. Part 107 rules for unmanned aircraft to be able to fly safely and responsibly. The rules came into effect on August 29, 2016, and have already had a positive impact on the unmanned vehicle industry.

**AIRCRAFT WORTHINESS**

With the growth of the retail drone industry market, determining a drone’s airworthiness becomes the owner’s responsibility. The FAA does not have the manpower to inspect every drone to determine if it’s airworthy. The drone must be in condition for “safe” operation. A good rule of thumb is DO NOT take your drone out for its maiden flight with an audience of bystanders. Not all drones come out of the box and work properly.

Begin with an exterior view of the craft and make sure that all the parts are properly attached. Turn the craft and the controller. Make sure the running lights on the drone are normal and that the controller display has a good connection to the drone. Pick a good vacant site to begin your field test. Start with a few take-offs and touch-downs, then hover about 3-4 feet. If you crash it should not be as devastating. Next, move from Point A to Point B, then the box pattern and finally a few figure eights.

**AIRCRAFT REGISTRATION**

The owner must be 13-years or older and A U.S. citizen or legal permanent resident to be able to register a drone for recreational use.

Aircraft Registration is required anyone who owns a small unmanned aircraft that weighs more than 0.55 lbs. and less than 55 lbs. (250 g and less than 25 kg) must register with the FAA UAS registry before they fly outdoors. The weight includes everything that is attached to the drone platform and is lifted into the air. It is the drone plus attachments (camera, gimbal, batteries, sensors, etc.) With batteries getting smaller and lighter I believe the weight requirements will be readdressed into categories of uses. Civil and criminal infractions are currently being legislated with penalties being assessed on a case-by-case basis.

It only costs $5 to register a drone. The FAA UAS Registration site is easy to maneuver and understand. You can either register your drone for recreational use or for commercial use. All that is needed is an email address, Credit or Debit card, and proof of a physical address or business mailing address. The FAA feels that the bank and credit companies have already done the research necessary so a credit card or debit card is sufficient for registration. Once you receive a registration number, you must mark the registration number on all aircraft. The markings on the drone must be easily accessible. You can mark the inside of the aircraft as long it has easy access. In other words, it does not require a tool such as a screw driver to access the compartment which has the registration number. Masking tape with the registration number written on it is considered to be a sufficient marking.

If I have both a recreational craft and commercial craft do I need 2 different registration numbers? Yes, the recreational registration did not ask about the make and model of the aircraft. The commercial registration wanted to know the make and model of the aircraft being flown for commercial operations.

The commercial registration is the essentially the same as recreational registration with the main difference being that you have to identify each individual drone being used for commercial operations. You must identify each commercial use drone by nickname, Manufacturer, Type and Serial number. You will have the same commercial registration number for all of your commercially registered drones.

**ALTITUDE RESTRICTIONS**

The maximum altitude is 400 feet above ground level (AGL), up to 400 feet above a structure or within 400 feet horizontally from a structure. A structure is basically defined as an unmovable object like a mountain, building or cell tower. The maximum altitude of 400 feet has been used by modelers for years and it insures the flyer will not interfere in manned airspace. Manned airspace is typically defined by different classifications and height restrictions of 1,000 feet above manmade structures and 500 feet above rural areas.

**LINE OF SIGHT**

Line of sight is the one restriction that is preventing companies like Amazon the ability to deliver packages by air. According to the United States rules, you must always keep drone within line of sight of either the remote pilot in command or a visual observer. This includes drones that have GPS capability. Preprogrammed flights are allowed as long as they adhere to the line of sight rule. Using a drone’s camera, also called, first-person view (FPV) is not allowed under the line of sight requirement. A drone’s camera can only see a portion of the sky as it flies in a 3-dimensional space. Problems can occur outside of the view of the camera. You cannot use visual aids to see a drone such as binoculars.

The FAA’s insistence on Line-of-Sight is for another important reason. Typically line-of-site is a good indicator of a good connection with your drone. There is less opportunity for loss of signal.

It is considered to be legal if visual line-of-sight requirement is met by having a visual observer. However, the rules do not specify the age of the visual observer. A good rule of practice is to use the same rules that apply to registration. A visual observer 13 years or older for recreational use and 16 years and older for commercial use. The visual observer has to have an unimpeded line of communication to the remote pilot in command. It is a gray area as to whether the remote pilot in command needs to be able to see the drone if it is involved in an emergency situation or whether the visual observer creates a compliance with the rules. It is also unclear whether daisy chaining visual observers can be compliant with the rules if there is a clear line of communication with the remote pilot in command.

The FAA is granting waivers for outside of line of sight operations. The waivers are being given to companies that can prove they have a real need and have procedures in place for emergency situations. Several companies granted waivers include ScanEagle, BNSF Railroad and Precision Hawk.

The FAA approved Insitu to operate the ScanEagle on beyond line-of-sight missions for ConocoPhillips. The flights are limited to a region about 100 nautical miles off the coast of Alaska called the Chukchi Sea. BNSF Railway is testing operations of drones on missions inspecting rail lines for obstructions or damaged tracks beyond line of site. Precision Hawk, a drone manufacturer and operator is testing operations to fly outside line of sight missions in the agriculture market.

Can a drone fly beyond the sight of the operator if there is a visual observer? Yes, the drone is allowed to fly beyond the line-of-sight of the operator as long as the visual observer has a clear view and well established communication with the operator. The operator, remote pilot in charge is solely responsible for the flight of the aircraft. Setting up visual observers in a daisy chain is being tested. The determination of beyond line-of-sight is that either the operator maintains control over the drone or the drone has a preprogrammed flight pattern. There has to be an alternate means of compliance, meaning that the same level of safety is being exercised with the authorized use.

Even though the rules do not state an age restriction on the age of the visual observer, it was recommended that an age of 13 or older was fair because it was also the same as the minimum registration age.

Can you have 2 or more operators on the same drone? No, as the rule is written, the Remote Pilot in Command verbage in the rules implies a single pilot.

The extended category means the UAV is operated beyond visual range but within direct line of sight of a ground-based command and control data link. The concern remains securing bandwidth for the beyond line of sight command and control link. Many rail lines support cellular network towers, which could also be used to relay commands to UAVs over the horizon. IT has been discussed whether it may be necessary to re-allocate spectrum specifically for commercial UAV operations beyond line of sight.

**SHARING AIRSPACE (OTHER AIRCRAFT IN THE AIR)**

Don’t fly near manned aircraft. This is absolutely insane. *Don’t risk it.* This is one of a pilot’s worst fears. It does not take much to bring down a small airplane. The general rule of thumb is that if another aircraft is in the air and sharing similar airspace to the drone then bring the drone down. This even goes for other drone operators in the air. Know your airspace. On April 17, 2016, a drone hit a British Airways plane approaching Heathrow Airport. The drone was flying at 1,700 feet in prohibited airspace. No one was injured and the plane was cleared to continue its next flight. Must yield right of way to manned aircraft. If something else is in the air than bring your drone home.

**UNDERSTANDING AIRSPACE**

Operations in Class B, C, D and E airspace are allowed with the required Air Traffic Controller (ATC) permission. Class A airspace begins at 18,000 feet AGL and is well beyond a drones permitted height of 400 feet. The FAA expects drone operators to be able to know how to read and understand charts. These can be Terminal Area Charts, charts around big cities, such as Atlanta or Sectional Aeronautical Charts, which are regions. All operations in Class G airspace are allowed without ATC permission.

One good way of determining the airspace is to use one of the available Apps on the market for your phone or computer. B4UFly is the FAAs App and is an excellent source to determine whether or not you can fly in certain areas. Not only does the site specify airports but will show heliports too.

Never fly near airports without permission. It is best to file a NOTAM if you are going to be within 5 miles of an airport. According to Flight Services, they are more concerned for flights around public airports. Public airports has a control tower.

Great Apps and websites to find out if you are within a no-fly zone. AirMap , Hover, B4UFly, Kitty Hawk.

If you are in 5-mile radius, the FAA would still like you to make 2 calls. First call Flight Services to issue a NOTAM. If it is a private airport with no control tower it is best to call the county counsellor, county manager, or even mayor to tell them you want to fly. Once the control tower gets the NOTAM from flight services they may call to get further clarification of your flight.

You need to notate who you talked to. Your cell phone record provides proof of date and time you called. Then you need to tell them where and when you would like to fly. The FAA recommends giving a 24 to 72 hour notice.

Can an ATC deny flight? Yes, a typical reason is that they are too busy. It is always best to coordinate with a tower at least 24 hours prior to flight. This allows the tower time to make the necessary arrangements to note your flight.

When you call Flight Services to issue a NOTAM, they will ask you for the latitude and longitude of where you are going to fly, they will ask you the height that you plan on flying and the radius of operation. Then they will ask for your name and phone number.

**DAYTIME FLYING**

All drone operations must occur during the daylight times between civil twilight. Civil twilight is 30 minutes before sunrise and 30 minutes after sunset. If the sky conditions deteriorate to darkness then you are not allowed to fly. In the 30 minutes before sunlight and 30 minutes after sunset you need to have appropriate anti-collision lighting. This does not apply if weather conditions prohibit appropriate anti-collision lighting.

**FLIGHT SPEED**

According to the FAA, you must fly at or below 100 mph, 87 knots.

**UNDERSTAND WEATHER**

Minimum weather visibility of 3 miles from control station. It is essential to understand basic weather information. Examples include understanding cloud coverage and wind patterns. When flying over ridges or mountain ranges, the most turbulent wind is on the leeside.

**OPERATIONAL REQUIREMENTS**

No person may act as a remote pilot in command or visual observer for more than one unmanned aircraft operation at one time. As this rules implies due to the fact that singular nouns were used, you are only allowed one visual observer per aircraft.

No operations from a moving aircraft. You cannot be in a plane or helicopter and try to control a drone at the same time.

No operations from a moving vehicle unless the operation is over a sparsely populated area. A densely populated area means flying over more than one person not directly involved in the operation of the drone. Sparsely populated areas are typically large agricultural acreage properties. The driver of the vehicle does not have to be a member of the crew.

Never fly over groups of people. If you are flying over a structure, you need to look at that structure as being fully occupied and make the necessary precautions. Some of the ways to ensure that people will not be in the flight pattern of the drone is to give sufficient notice of intent to fly. Another way is to have a waiver that is signed by individuals which state that they understand the inherent risks of drone operations and they will accept responsibility for their actions if harmed by the drone.

How close can you fly to people not involved in the operation of the drone? The rules do not specify a safe distance from people. A safe distance is considered one in which if the drone were to be in an emergency situation it would not impose any risk or harm to individuals or property. It is recommended that persons in the immediate area not directly involved in the operation of the drone, be notified of the operation and told where to stand to be a safe distance away. If the FAA has to investigate an accident, one of the first questions will be what safety procedures did you put in place to mitigate the damages.

An operator needs to be sure to take every precautionary measure to ensure safety if flying near people. If flying over a property for real estate use, have the owner and occupants sign a waiver stating that they are aware of the inherent risk of drones and that they are aware of the time and the flight plan so that they can seek protective shelter or be a sufficient distance away from operations.

Create a take-off area, flight area and inspection area. This should be the information that you supply in the waiver. You will notify the launch and then notify of the all-clear when operations have been completed.

Never fly over stadiums or sports events. Essentially, you can fly over a stadium if it is empty, however it may be a civil infraction. Schools, Universities and Colleges may restrict the ability of flying a drone over their stadium. The basic rule of if you are flying over people not directly involved in the operation of the drone is prohibited. Federal law restricts all drones from flying at or below 3,000 AGL within a 3 nautical mile radius of any stadium with a seating capacity of 30,000 or more people. These include Major League Baseball, National Football League, NCAA Division I football game, or major motor speedway event.

Never fly near emergency response efforts. It is becoming common practice for people to fly their drones above emergency response situations. Drones can get in the way of the emergency responders aircraft and even their drones.

“Once sunset occurs, we are not able to use our aircraft,” Daniel Berlant, a spokesman for the California Department of Forestry and Fire Protection, told the Los Angeles Times. “We needed to make as many drops as we could before sunlight went away. And at that point we had not been able to make access to the fire line on the ground, so the aircraft were critical.”

Never fly under the influence. The general rule is that if you are impaired then DO NOT FLY. According to my sources at the FAA, the legal arm of the government stretches far and wide, If something goes wrong in the operation of your drone, the FAA can instruct local law enforcement to give you an on the spot blood test.

Be aware of airspace requirements. Pleading Ignorance is not a defense. Until you understand the rules and check out the airspace of everywhere you want to fly. The FAA

**WHERE TO LEARN TO FLY**

A local model aircraft club is recommended. If you cannot find a local modeling club to fly then select a site a sufficient distance away from populated areas. It should also be away from noise-sensitive areas such as parks, schools, churches, etc. Parks are GREAT. Choose days when they are not unoccupied or where you can fly safely over no spectators.

Do not operate in the presence of spectators until the aircraft is successfully flight tested and proven airworthy.

**HOW TO LEARN TO FLY SAFELY**

If you have the ability, do take lessons and learn to fly safely. The best way would be to join a local radio controlled club. If you are unable to join a radio controlled club then you will have to learn on your own. The first thing you should do is read the instruction manual and understand the components of the aircraft. I always recommend buying a small handheld toy drone to learn the basics. There are some which are totally manually controlled and have trim features. These are great drones because they are typically built to survive a crash and the small ones can be flown indoors.

Once you have mastered indoors flight it’s time to go outside. Typically, small toy drones do not handle outdoor conditions that well so you are probably upgrading to a larger drone. Here are some tips to determine the airworthiness of your drone. The tips are also good for mastering your drone’s flight.

The following lessons are also good test to see if your aircraft is safe. As you gain experience and practice these maneuvers, you will discover that when your drone is not functioning properly you will be able to easily tell by its performance. These tests go from basic to advanced. The first test is just to get comfortable with the drone.

***Hovering***

First learn to fly 3 to 4 feet off the ground. Just fly around and get used to the controls. Go up and down, forward and back, left and right. The prop wash and air flow under the rotors will not be interfered with by the ground.

Most importantly, crashes should not be as devastating.

***Point A to Point B***

Practice taking off from a designated spot and fly to a designated spot and land then back. Go back and forth and practice making the maneuver with the multi-rotor facing different directions.

***The Box Pattern***

Complete a box pattern with the drone flying to each corner aimed at each corner. The try landing at each corner and taking off.

***Figure 8’s***

Once you get comfortable with flying try Figure 8’s. It will teach you how to fly in different orientations.

**Recreational Flying**

Do fly a model aircraft for personal enjoyment. Recreational flying can be personally satisfying and understanding the basics will make it that much more enjoyable.

**INTERNET SOURCES**

The great thing about Drone Technology is the wealth of information that is being shared over the internet. Everything from reviews, to learning the components of your drone to tips on flying your particular model are available. YouTube is a great source. I have discovered that the internet has supplied me with some valuable information that I was unable to obtain in the owners manuals of the drones that I own. There are a lot of videos which can teach you everything you would like to know about the drone. I think as long as drones become more and more a part of everyday life, educational videos will remain on the web.

**MAGAZINES**

There are magazines like Drone, Rotor Drone, Drone Zone and Drone 360 which are being published. Finally,

Finally, PRACTICE, PRACTICE, PRACTICE

**ORGANIZATIONS**

Whether it is recreational or commercial flying it is a good idea to join an organization. I recommend joining the Academy of Model Aeronautics, also known as AMA (<http://www.modelaircraft.org/>). This is a great organization for model aircraft users. They are assisting the FAA in integrating drones into the airspace and are also advocates for the recreational use of drones. They have been in existence longer than the FAA and they are on the front lines of protecting the rights of drone flyers. They are also a good source for rules and regulations and they have resources available to assist you in finding local flying clubs. Another organization is the Association for Unmanned Vehicle Systems International, also known as AUVSI (<http://www.auvsi.org/home>). This organization covers a lot of military applications but has seen a recent focus on the commercialization of the drone industry. The great thing about joing this organization is that your dues pays for the ability to attend free webinars.

RC Airplane World

<http://www.rc-airplane-world.com/>

**AERO-MODELING RULES**

Your local radio controlled club should have community-based guidelines. If not you can probably find a set of guidelines from other regional clubs. Do not fly contrary to your aero modeling community-based guidelines.

RC Radio Flyers

Go to Special Drone Events

International Drone Day 2016

Ask Questions from Experts

Ask Questions at Expos

***Commercial Flying***

If monies are exchanged for services provided by a drone then that constitutes a commercial usage. If you do not have a certification then do not fly model aircraft for payment or commercial purposes. You need to get a Part 107 Remote Pilot Certificate.

To be eligible for a Part 107 Remote Pilot Certificate. You must satisfy the following requirements.

1. Be at least 16 years old.
2. Be able to read, speak, write, and understand the English language (FAA may make exceptions for medical reasons).
3. Be in a physical and mental condition that would not interfere with the safe operation of sUAS.
4. Fulfill training and testing requirements.

There are two ways to become receive a Part 107 Remote Pilot Certificate of Authorization to fly a drone for commercial use.

1. Already a part 61 pilot certificate holder. Basically, if you hold a pilot’s license or
2. If you are not a part 61 pilot certificate holder (or do not hold a current flight review), you are required to demonstrate an understanding of all areas of knowledge specified in 14 C Federal Registry Part 107.73(a) by:
3. passing the initial FAA Unmanned Aeronautical General Knowledge Test at an FAA-approved Knowledge Test Center.
4. Complete a training class.

How to take the Knowledge Test

1. Schedule an appointment with a Knowledge Testing Center (KTC)
2. Call 1-800-947-4228
3. Tests are Monday through Saturday
4. 60 questions
5. 2 hours to complete

**What’s on the Knowledge Test**

The knowledge test includes:

1. Applicable regulations relating to small unmanned aircraft system rating privileges, limitations, and flight operation
2. Airspace classification and operating requirements, and flight restrictions affecting small unmanned aircraft operation
3. Aviation weather sources and effects of weather on small unmanned aircraft performance
4. Small unmanned aircraft loading and performance
5. Emergency procedures
6. Crew resource management
7. Radio communication procedures
8. Determining the performance of small unmanned aircraft
9. Physiological effects of drugs and alcohol
10. Aeronautical decision-making and judgment
11. Airport operations
12. Maintenance and preflight inspection procedures

Once you Pass the exam you will need to complete a training class. There is a class offered for UAS operations in - FAA Safety. You will receive a certificate of completion once you take the class and pass the test.

Finally, you will complete FAA Form 8710-13 for a remote pilot certificate (FAA Airman Certificate and/or Rating Application) using the electronic FAA Integrated Airman Certificate and/or Rating Application system (IACRA)\*

You will then be issued a temporary Pilots Certificate while you are waiting on being vetted by the Transportation Security Administration (TSA). Once you pass the TSA screening you will receive an unmanned aircraft operator certificate with a small UAS rating. There is no expiration on the certificate. The only additional requirement is that you pass a recurrent aeronautical knowledge test every 24 months.

Items covered on the FAA Unmanned Aeronautical General Knowledge Test.

Airspace classification, operating requirements and flight restrictions affecting small unmanned aircraft operation

Aviation weather sources

Radio communication procedures

Physiological effects of drugs and alcohol

Aeronautical decision-making and judgment

Airport operations

Once you have your Certification

**LOG BOOK**

Conduct preflight inspections of aircraft and control station system.

Log where you flew, when you flew, how high you flew, the time in the air. There are apps which can provide all of this information.

Make available to the FAA, upon request, the small UAS for inspection or testing, and any associated document/records required to be kept under the proposed rule.

Damage to any property, other than the small unmanned aircraft, if the fair market value of the damaged item is less than $500. If the cost to repair is greater than $500 and the fair market value is less than $500 then you do not have to report. Damage to your Drone is not considered to be reportable to the FAA.

**Notifying the FAA**

The information you are required to give to the FAA.

1. Small UAS Operator’s name and contact information
2. Small UAS Operators FAA Airman Certificate Number
3. Small UAS information (make and model)
4. Name of Registered Owner
5. Location of Accident
6. Person(s) Injured and Extent of Injury, if any or known
7. Property Damaged and Extent of Damage, if any or known
8. Description of what happened

Go to Special Drone Events

International Drone Day 2016 – Athens, Georgia

Attend webinars and club

Ask Questions from Experts

Representatives of the FAA attended International Drone Day

Ask Questions at Expos

**Flying for Commercial Purposes**

If monies are exchanged for services provided by a drone then that constitutes a commercial usage.

If you do not have a certification then do not fly model aircraft for payment or commercial purposes.

You need to get a Part 107 Remote Pilot Certificate.

**FAA – Fly for Commercial Use**

To be eligible for a Part 107 Remote Pilot Certificate. You must satisfy the following requirements.

* Be at least 16 years old.
* Be able to read, speak, write, and understand the English language (FAA may make exceptions for medical reasons).
* Be in a physical and mental condition that would not interfere with the safe operation of sUAS.
* Fulfill training and testing requirements.

Part 3

**FAA – Fly for Commercial Use**

Two ways to become receive a Part 107 Remote Pilot Certificate of Authorization to fly a drone for commercial use.

* Already a part 61 pilot certificate holder. Basically, if you hold a pilots license.

**Obtaining your RPIC Certification**

If you are not a part 61 pilot certificate holder (or do not hold a current flight review), you are required to demonstrate an understanding of all areas of knowledge specified in 14 C Federal Registry Part 107.73(a) by:

* passing the initial FAA Unmanned Aeronautical General Knowledge Test at an FAA-approved Knowledge Test Center.
* Complete a training class.

**How to take the Knowledge Test**

Schedule an appointment with a Knowledge Testing Center (KTC)

Call 1-800-947-4228

Tests are Monday through Saturday

60 questions

2 hours to complete

**What’s on the Knowledge Test**

The knowledge test includes:

* Applicable regulations relating to small unmanned aircraft system rating privileges, limitations, and flight operation
* Airspace classification and operating requirements, and flight restrictions affecting small unmanned aircraft operation
* Aviation weather sources and effects of weather on small unmanned aircraft performance
* Small unmanned aircraft loading and performance

**What’s on the Knowledge Test**

* Emergency procedures
* Crew resource management
* Radio communication procedures
* Determining the performance of small unmanned aircraft
* Physiological effects of drugs and alcohol
* Aeronautical decision-making and judgment
* Airport operations
* Maintenance and preflight inspection procedures

Once you Pass

Complete a Training Class – FAA Safety

Complete FAA Form 8710-13

Finally

Complete FAA Form 8710-13 for a remote pilot certificate (FAA Airman Certificate and/or Rating Application) using the electronic FAA Integrated Airman Certificate and/or Rating Application system (IACRA)\*

**FAA –Part 107**

Be vetted by the Transportation Security Administration (TSA).

Obtain an unmanned aircraft operator certificate with a small UAS rating (NO EXPIRATION).

Pass a recurrent aeronautical knowledge test every 24 months.

**FAA – Fly for Commercial Use**

Items covered on the FAA Unmanned Aeronautical General Knowledge Test.

Airspace classification, operating requirements and flight restrictions affecting small unmanned aircraft operation

Aviation weather sources

Radio communication procedures

Physiological effects of drugs and alcohol

Aeronautical decision-making and judgment

Airport operations

Once you have your Certification

Make available to the FAA, upon request, the small UAS for inspection or testing, and any associated document/records required to be kept under the proposed rule.

Report an accident to FAA within 10 days of any operation that results in injury or property damage.

Conduct preflight inspections of aircraft and control station system.