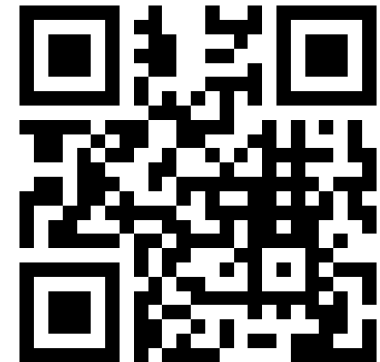




# Small Unmanned Aerial System (sUAS) Commercial Remote Pilot in Command (PIC) Ground School

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Congress



49 US Code Subtitle VII



US Department of Transportation



Federal Aviation Administration (FAA)



Code of Federal Regulations (CFR) Title 14  
(Federal Air Regulations [FARs])



14 CFR Part 107 (UAS)



NTSB Administrative Law Judges

14 CFR Part 107 covers commercial small UAS operation.

UAS “an aircraft that is operated without the possibility of direct human intervention from within or on the aircraft”

Small less than 55lbs (25kg)

Commercial

“anything of value” in exchange for the operation, or carriage of any property for hire.

Part 107 does not cover:  
Recreational or hobby use



Operation under Part 91 or 121

“Public” use (government, law enforcement) under  
Certificate Of Waiver or Authorization (COA)

Moored or free balloons or kites or rockets

This class does not cover:

All of the other state, local, and non-FAA  
Federal laws you may need to obey.

# Recreational and Hobby Advisory Circular (AC) 91-57

49 USC 44809(a)

Test before use  
Below 400 feet  
Give way to others

Very simple!

AC 91-57

DATE June 9, 1981

## ADVISORY CIRCULAR

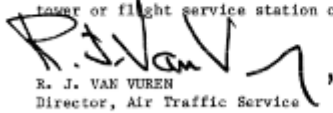


DEPARTMENT OF TRANSPORTATION  
Federal Aviation Administration  
Washington, D.C.

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*Subject:* MODEL AIRCRAFT OPERATING STANDARDS

1. PURPOSE. This advisory circular outlines, and encourages voluntary compliance with, safety standards for model aircraft operators.
2. BACKGROUND. Modelers, generally, are concerned about safety and do exercise good judgement when flying model aircraft. However, model aircraft can at times pose a hazard to full-scale aircraft in flight and to persons and property on the surface. Compliance with the following standards will help reduce the potential for that hazard and create a good neighbor environment with affected communities and airspace users.
3. OPERATING STANDARDS.
  - a. Select an operating site that is of sufficient distance from populated areas. The selected site should be away from noise sensitive areas such as parks, schools, hospitals, churches, etc.
  - b. Do not operate model aircraft in the presence of spectators until the aircraft is successfully flight tested and proven airworthy.
  - c. Do not fly model aircraft higher than 400 feet above the surface. When flying aircraft within 3 miles of an airport, notify the airport operator, or when an air traffic facility is located at the airport, notify the control tower, or flight service station.
  - d. Give right of way to, and avoid flying in the proximity of, full-scale aircraft. Use observers to help if possible.
  - e. Do not hesitate to ask for assistance from any airport traffic control tower or flight service station concerning compliance with these standards.

  
R. J. VAN VUREN  
Director, Air Traffic Service

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Initiated by: AAT-220

# Commercial sUAS Roles

- Exactly one “Remote PIC” is required
  - Only role that requires FAA certificate
- Separate control operator may be used
- Optional observers to keep craft in sight

These three roles are named in Part 107 and can be expected on the exam.

# Remote PIC Certificate

- Be at least 16 years old
- Able to read, write, speak, and understand English
- Not have a mental or physical condition that would prevent safe operation
- Pass a written test
- Apply for the certificate through Certificated Flight Instructor (CFI) or Flight Standards District Office (FSDO)
- Pass a recurrent test within 24 calendar months
- Notify FAA within 30 days after moving

# Records Keeping

- UAS Registration Certificate and Markings

  - If  $\geq 0.55$  lbs (250g), register UAS under Part 48

  - If  $\geq 55$  lbs (25kg), register UAS under Part 47

  - [http://www.faa.gov/licenses\\_certificates/aircraft\\_certification/aircraft\\_registry/ua/](http://www.faa.gov/licenses_certificates/aircraft_certification/aircraft_registry/ua/)

- Remote PIC Certificate and ID with photo and DOB
- Declaration of Compliance for waivers
- Manufacturer's documentation
  - Maintenance and modifications performed
- FAA may inspect records and UAS “on request”
  - Might occur after an emergency or incident



# Medical Qualifications

- No separate medical exam required
- Must not operate with known deficiency
- As Remote PIC, must not allow others to operate when unsafe
- Alcohol: 8 hours AND below 0.04 g/dL
- Must submit to law enforcement alcohol test
- Cannot carry narcotics on UAS

91.17 Alcohol or drugs.

- (a) No person may act or attempt to act as a crew member of a civil aircraft -
- (1) Within 8 hours after the consumption of any alcoholic beverage;
  - (2) While under the influence of alcohol;
  - (3) While using any drug that affects the person's faculties in any way contrary to safety; or
  - (4) While having an alcohol concentration of 0.04 or greater in a blood or breath specimen. Alcohol concentration means grams of alcohol per deciliter of blood or grams of alcohol per 210 liters of breath.

[ (b) is irrelevant ]

(c) A crew member shall do the following:

- (1) On request of a law enforcement officer, submit to a test to indicate the alcohol concentration in the blood or breath, when -
  - (i) The law enforcement officer is authorized under State or local law to conduct the test or to have the test conducted; and
  - (ii) The law enforcement officer is requesting submission to the test to investigate a suspected violation of State or local law governing the same or substantially similar conduct prohibited by paragraph (a)(1), (a)(2), or (a)(4) of this section.
- (2) Whenever the FAA has a reasonable basis to believe that a person may have violated paragraph (a)(1), (a)(2), or (a)(4) of this section, on request of the FAA, that person must furnish to the FAA the results, or authorize any clinic, hospital, or doctor, or other person to release to the FAA, the results of each test taken within 4 hours after acting or attempting to act as a crew member that indicates an alcohol concentration in the blood or breath specimen.

- (d) Whenever the Administrator has a reasonable basis to believe that a person may have violated paragraph (a)(3) of this section, that person shall, upon request by the Administrator, furnish the Administrator, or authorize any clinic, hospital, doctor, or other person to release to the Administrator, the results of each test taken within 4 hours after acting or attempting to act as a crew member that indicates the presence of any drugs in the body.
- (e) Any test information obtained by the Administrator under paragraph (c) or (d) of this section may be evaluated in determining a person's qualifications for any airman certificate or possible violations of this chapter and may be used as evidence in any legal proceeding under section 602, 609, or 901 of the Federal Aviation Act of 1958.

91.19 Carriage of narcotic drugs, marihuana, and depressant or stimulant drugs or substances.

- (a) Except as provided in paragraph (b) of this section, no person may operate a civil aircraft within the United States with knowledge that narcotic drugs, marihuana, and depressant or stimulant drugs or substances as defined in Federal or State statutes are carried in the aircraft.
- (b) Paragraph (a) of this section does not apply to any carriage of narcotic drugs, marihuana, and depressant or stimulant drugs or substances authorized by or under any Federal or State statute or by any Federal or State agency.

# “I'm Safe” Checklist

I.....Illness

M...Medication (over-the-counter and prescription)

S... Stress

A... Alcohol (8 hours and 0.04 g/dL blood alcohol)

F... Fatigue (sufficient sleep and rest between operations)

E... Emotion (or "eating" in some references)

# Offenses

- Alcohol, drugs, or test refusal:
  - One year denial of certificate
  - Suspension
  - Revocation

Penalties and offenses are included in the test question bank.