SAFETY ADVISOR

Regulations No. 3





The Federal Aviation
Regulations outline
how we become
pilots, how our
aircraft are certified
and built, how we
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Federal Aviation Regulations

Introduction

The Federal Aviation Regulations (FARs) outline how we become pilots, how our aircraft are certified and built, how we should fly, and much more. This Safety Advisor describes the structure of the FARs, discusses how they are created and modified, and points out other regulation-related documents all pilots should know about. It also points to some of the most frequently misunderstood FARs, and provides advice on what you should do—or not do—if faced with a charge of violating a regulation.



Aviation itself is constantly changing, and regulations are added regularly. FARs are legal documents, written with the assistance of lawyers and full of cross references and exceptions. They can be difficult to understand, and sometimes require clarification by instructors, FAA inspectors, FAA headquarters personnel, and the courts.

AOPA members can get help unraveling confusing regulations by contacting the AOPA Pilot Information Center at 800/USA-AOPA (800-872-2672), or pilotassist@aopa.org. You can also find subject reports and other information to help interpret the FARs at the AOPA Web site (www.aopa.org).

Relevant Parts for GA Pilots

The legal title of the regulations is "14 CFR" (Code of Federal Regulations) followed by the part number, such as 61 or 91. Understandably, most pilots still refer to them as "FARs."

Parts in the FARs are numbered all the way up to 198. Fortunately, only a few normally apply to general aviation (GA) pilots. They are:

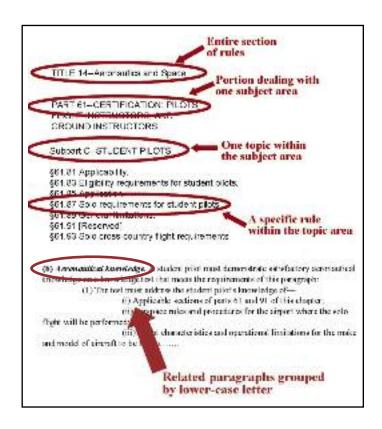
- Part 1 Definitions and Abbreviations: A glossary for the FARs.
- Part 61 Certification: Pilots, Flight Instructors, and Ground Instructors: Requirements for earning and maintaining pilot certificates and ratings.
- Part 67 Medical Standards and Certification: Requirements for all three classes of FAA medical certificates.
- Part 91 General Operating and Flight Rules: GA's rules of the sky.

Parts that are used less frequently by GA pilots include Part 43, which is useful for aircraft owners who wish to help maintain their own aircraft, and Part 141, which applies to FAA-approved flight schools.

Most parts are organized into subparts that are identified with all capital letters to make it easier to find a specific requirement. For example, in Part 61, various subparts deal with aircraft ratings and pilot authorizations (Subpart B), rules for student pilots (Subpart C), rules for private pilots (Subpart E), and so on. Within the subparts, paragraphs that deal with related material are organized into lowercase lettered sections. For example, under Subpart C, FAR 61.87(b) outlines what information must be covered on the presolo knowledge test for a student pilot.

In many places throughout the FARs, you'll find that only odd numbers are used to number paragraphs. This allows future additions to be made without renumbering the entire section. When you see an even number, you know that it is material inserted after the original issuance.

In a few places in the FARs, you'll find other documents "incorporated by reference," which ties those documents to the FARs, making the rulebook much shorter by not repeating something written down elsewhere and avoiding unnecessary revisions



when a change to the referenced document will do the job. An example is in FAR 91.323, which allows some pilots to fly aircraft slightly over allowable gross weight, but only if the aircraft was type certificated under Aeronautics Bulletin Number 7-A of the U.S. Department of Commerce, dated January 1, 1931, as amended.

Incorporated by reference

 \S 91.323 Increased maximum certificated weights for certain airplanes operated in Alaska

(a) Notwithstanding any other provision of the Federal Aviation Regulations, the Administrator will approve, as provided in this section, an increase in the maximum certificated weight of an airplane type certificated under Aeronautics Bulletin No. 7–A of the U.S. Department of Commerce dated January 1, 1931, as amended, or under the normal category of part 4a of the former Civil Air Regulations (14 CFR part 4a, 1964 ed.) if that airplane is operated in the State of Alaska...

In addition to the regular FARs, there are Special FARs, or SFARs, which address very narrow situations not relevant to all pilots. For example, SFAR No. 73 in Part 61 sets requirements for training in the Robinson R-22/R-44 helicopter that exceed those in the rest of Part 61. SFAR No. 50-2 in Part 91 defines flight rules for the area around the Grand Canyon in Arizona. SFARs often include expiration dates.

One book often referenced by serious students of FARs is Federal Aviation Regulations Explained, by Kent S. Jackson. In addition to the FARs themselves, the book includes the FAA's explanatory preamble



for many of the regulations, as well as relevant FAA, NTSB and court decisions that help in understanding the regulation. It is available at www.jetlaw.com.

Where Can I Find the FARs?

Fortunately, FARs are easy to find in both print and electronic form. Popular FAR books are published by ASA, Gleim, Jeppesen and others.

Online versions of the FARs are available in the members section of the AOPA Web site (www.aopa.org) and under Title 14 on the Government Printing Office eCFR web site (http://ecfr.gpoaccess.gov/).

Other Guidance

In addition to the regulations, several other sources of information are helpful in flying safely and legally. Two of the most often used are the Aeronautical Information Manual (AIM), which includes "good practices" flight information and air traffic control procedures, and Advisory Circulars (ACs), which provide insight and practical help in applying the FARs and flying safely. For example, various sections of the FARs require that an endorsement from a flight instructor be entered in a logbook, but the rulebook is silent on what those endorsements should say. AC 61-65E, Appendix 1 has the recommended wording for each endorsement.

The full text of the AIM, as well as all general aviation ACs, are available to AOPA members on the AOPA Web site, www.aopa.org/members/pic/faapilots/.

Other sources of aviation information include the Pilot/Controller Glossary; Airport/Facility Directories; aeronautical charts; pilot operating handbooks (POHs) or airplane flight manuals (AFMs) for particular aircraft; airworthiness directives (ADs); manufacturer service

letters, instructions and bulletins (SBs); and NTSB rules and publications. Recently added to this list are the regulations of the Transportation Security Administration (49 CFR Chapter XII).

Stay Alert for Changes

FARs are not updated on a set schedule, which means pilots must stay alert for changes that could have an impact on their flying. Understanding the FAA's very structured rulemaking process will help you keep track of proposed new regulations and know when and where you can make your voice heard in the rulemaking process. One of the best ways to stay informed of changing FARs is to monitor the AOPA Web site, which clearly announces important proposed changes. The Government Advocacy tab provides additional in-depth information on current regulatory issues.

The Regulatory Process

The FAA's process for issuing new regulations is often cumbersome, but it gives pilots a chance to be heard in the rulemaking process. Such input has often helped defeat unfair or unworkable proposals.

A new regulation, or a change to an existing one, often starts with discussions between the FAA and the aviation industry. AOPA plays an important role here, representing your interests as a GA pilot.

Once the FAA has a good idea of what regulatory changes it believes are needed, it publishes a notice of proposed rulemaking (NPRM) in the Federal Register. The NPRM contains the FAA's reasons for wanting to amend an FAR, or add a new one, and the effect it expects the change to have. NPRMs usually ask for public comment on the proposed change, which gives you an opportunity to voice your opinion directly.

AOPA monitors NPRMs every day, and keeps members informed of any that could affect their freedom to fly or unnecessarily increase the cost of flying. Through its Web site (www.aopa.org/whatsnew/regulatory/) and weekly ePilot newsletter, AOPA explains the proposals and solicits member input on changes as needed. Suggestions for making useful and effective comments on NPRMs is available to AOPA members at www.aopa.org/members/files/topics/nprm.html.

Taking these public comments into account, the FAA and the Department of Transportation draft, review,



and approve the change in the regulations. The entire process can take several years, and usually results in a Final Rule, setting the effective date of the regulation changes and summarizing the significant issues raised by pilots and other commenters, as well as the FAA's response.

Occasionally the FAA will bypass the usual NPRM process and issue a Final Rule With Request For Comments, usually for changes that the Administration believes are needed without delay. One subset of this expedited rulemaking is a Direct Final Rule, which is issued when the FAA believes the rule change would not draw any adverse comments. However, a Direct Final Rule also requests comments in the time between its issuance and effective date, and if adverse comments are received, the Direct Final Rule may be withdrawn and an NPRM issued.

Preambles

Each new rule is also accompanied by a preamble, which describes the intent of the change. To fully understand a regulation, it helps to read the preamble. Preambles normally appear with the rule itself when it is published in the Federal Register. The book *FARs Explained* by Kent S. Jackson also contains preambles, as well as relevant FAA, NTSB, and court decisions interpreting the rule.

For instance, you may wonder why FAR 61.51(b) was changed to include "lesson time": .61.51(b) Logbook entries. Each person must enter.... (ii) Total flight time or **lesson time**.

The mystery is solved in the preamble for this 1997 change: Section 61.51 Pilot logbooks. The FAA

corrected paragraph (b)(1)(ii) to include "lesson time" as information to be recorded in logbook entries. <u>This provision is necessary because simulator time and flight time are not synonymous. Training time acquired in a simulator must be logged as "lesson time" unless otherwise specified in part 61. For example, § 61.109(i) permits certain training time acquired in a flight simulator or flight training device to be credited toward the flight training time requirements of that section.</u>

Violations of the Regulations

Of course, all pilots strive to operate according to the FARs. But what should you do in the event of an emergency, an FAA ramp check, or an accident?



FAR 91.13(a): "No person may operate an aircraft in a careless or reckless manner so as to endanger the life or property of another."

There are five types of FAA actions against errant pilots:

- Administrative Action Used to handle violations that are too minor to warrant legal enforcement action. An example would be requiring additional ground training for the pilot.
- Reexamination FAA reexamines a pilot to determine if he or she is still qualified to hold a certificate.
- Certificate Action Most commonly used legal enforcement action against GA pilots; includes suspension or revocation of pilot certificate.
- **Civil Penalty** A monetary fine.
- Criminal Action Prosecution by the U.S.
 Department of Justice as a criminal case. Criminal action is rare.

A more detailed discussion of FAA enforcement is available to AOPA members at www.aopa.org/members/files/guides/enforce.html.

Emergencies

91.3 (b) says "In an in-flight emergency requiring immediate action, the pilot in command may deviate from any rule of this part to the extent required to meet that emergency." There is a widespread pilot misconception that declaration of an emergency results in mountains of paperwork and an FAA investigation. It does not, in most cases, although pilots are expected to use good judgment in deciding when an emergency declaration is needed. Reports are generally not required to be filed by the pilot following his or her use of the emergency authority to deviate from a regulation unless it results in an accident or certain types of incidents, or the FAA specifically requests it.

Ramp Checks

FAA inspectors occasionally conduct ramp checks, asking to see certain documents and equipment. The AOPA Air Safety Foundation suggests that you be courteous and cooperative with the FAA inspector, but do not volunteer any more information than is absolutely required.

The most common items requested for inspection during a ramp check include:

- Your medical and pilot certificate.
- **Logbook** (required only for student pilots).
- **Airworthiness certificate** (displayed at the cabin or cockpit entrance (91.203[b]).
- Aircraft registration.
- Approved flight manual or operating handbook.
- Weight and balance data.
- Current charts appropriate for the flight. Although current charts are not specifically required by the FARs, most pilots consider having them as part of the "all available information" requirement of FAR 91.103.

If the ramp check is due to a suspected violation, or if the inspector indicates that one may have occurred, remember that anything you say may be used against you. There can be many confusing details in ramp checks, so the information here is a very simplified overview. More information about ramp checks is available to AOPA members at www.aopa.org/members/files/topics/rmpcheck.html.



Accidents and Incidents

FAA enforcement actions often follow aircraft accidents and incidents. So if you've had an accident, should you report it to the FAA?

A common misconception among pilots is that the FAA is the primary authority in aircraft accident investigation. That's not the case. By law, the accident investigation function is vested in the NTSB, a federal agency independent of the FAA. However, it is very common for the NTSB to delegate its authority to investigate to the FAA, particularly for less significant GA accidents. If you are involved in an accident, or certain specific incidents, or if the aircraft is missing and believed to have been involved in an accident, notify the NTSB immediately. The full accident report must follow within 10 days, or seven days for a missing aircraft. Full reports of specific incidents are needed only if requested by the FAA.

Too many accidents are unnecessarily reported, because the definition of "accident" is much narrower than most pilots think. For instance, it's not an accident if it occurs with an unoccupied, parked, or runaway aircraft. An accident while taxiing an airplane without the intention of flight is also not considered to be an accident.

To fit the definition of an accident, an event must also involve death, serious injury, or substantial damage. Serious injuries that qualify are specifically listed in NTSB Part 830, which is usually included with FARs in publications or online aviation Web sites. Substantial damage is that which adversely affects the structural strength, performance, or flight characteristics of the aircraft and normally requires major repair. Substantial damage does not include engine failure or

damage limited to an engine if only one engine fails or is damaged; bent fairings or cowlings; dented skin; small puncture holes in the skin or fabric; ground damage to rotor or propeller blades; and damage to landing gear, wheels, tires, flaps, engine accessories, brakes, or wing tips.

An incident is an occurrence other than an accident, associated with the operation of an aircraft, which affects or could affect the safety of operations. Incident reporting is usually only required for specific incidents listed in NTSB Part 830.

NASA ASRS

The Aviation Safety Reporting System (ASRS) program is designed to help find and fix hazards or aviation procedures that could be improved. To encourage pilots and others to report problems, the program provides limited immunity from FAA penalties in the event of a regulatory violation by the reporting pilot. The ASRS homepage can be found at http://asrs.arc.nasa.gov/.

For confidentiality, the ASRS program relies on NASA, rather than the FAA, to process the reports. A pilot who finds an aviation hazard, or perhaps commits an error in following an established aviation procedure (such as "busting" an ATC-assigned altitude), reports the situation to NASA. Upon receiving the report, NASA removes the submitter's name before passing the



Filing a NASA report in a timely manner can result in a waiver of FAA penalties. information to the FAA. To make reporting easier, NASA has developed a postage paid form, (ARC Form 277B) which is preaddressed. Reports can also be submitted online. To get the "immunity" benefit, a pilot must file an aviation safety report within 10 days of the incident.

The ASRS report, which is commonly called "the NASA form," is not the get-out-of-jail-free card some pilots believe it is. The program applies only to violations that are inadvertent, not criminal, and do not involve an accident. It does not apply to pilots who lack qualifications or competency, or to repeat offenders (those with a finding of violation in the past five years).

AOPA Legal Services Plan

Often, the first time a pilot finds out that the FAA has started an enforcement action is when he or she receives a certified letter from the FAA. When an enforcement action has begun, your first step should be to obtain legal advice from a lawyer qualified to practice aviation law.

The AOPA Legal Services Plan makes aviation legal assistance and representation available to AOPA members at a very reasonable cost. For details visit www.aopa.org/info/certified/lsp/.

Frequently Misunderstood FARs

Every year, technical specialists in AOPA's Pilot Information Center answer more than a hundred thousand questions from AOPA members about every conceivable aspect of flying. Many of these questions concern regulations. Drawing on input from AOPA's more than 400,000 members, technical specialists have put together a resource of the most often misunderstood FARs, along with the answers to those questions. Members may see that resource at www.aopa.org/members/files/faq/.

How to Read the FARs

Due to the legal style used to write the regulations, they should be approached with the utmost attention to every word and punctuation, while keeping each word, sentence, and paragraph in context with the meaning of the regulation itself.

The FAA definitions of words used in regulations are often key to a full understanding of the rule. For instance, take FAR 61.51(h):

Logging training time. (1) A person may log training time when that person receives training from an authorized instructor in an aircraft, flight simulator, or flight training device.

Looks straightforward enough, doesn't it? Now apply FAA definitions to these terms, and you'll see what a can of worms even a simple regulation can be:

- 1. A person... 14 CFR 1.1; Person means an individual, firm, partnership, corporation, company, association, joint-stock association, or governmental entity. It includes a trustee, receiver, assignee, or similar representative of any of them.
- 2. may... 14 CFR 1.3; May is used in a permissive sense to state authority or permission to do the act prescribed, and the words "no person may * * *" or "a person may not * * *" mean that no person is required, authorized, or permitted to do the act prescribed.
- 3. log training time... 14 CFR 61.1; Training time means training received
 - (i) In flight from an authorized instructor;
 - (ii) On the ground from an authorized instructor; or
 - (iii) In a flight simulator or flight training device from an authorized instructor.
- 4. when that person receives training from an authorized instructor... 14 CFR 61.1; Authorized instructor means—
 - (i) A person who holds a valid ground instructor certificate issued under part 61 or part 143 of this chapter when conducting ground training in accordance with the privileges and limitations of his or her ground instructor certificate;

- (ii) A person who holds a current flight instructor certificate issued under part 61 of this chapter when conducting ground training or flight training in accordance with the privileges and limitations of his or her flight instructor certificate; or (iii) A person authorized by the Administrator to provide ground training or flight training under SFAR No. 58, or part 61, 121, 135, or 142 of this chapter when conducting ground training or flight
- 5. in an aircraft, flight simulator, or FTD... 14 CFR 1.1: Aircraft means a device that is used or intended to be used for flight in the air.

training in accordance with that authority.

Flight simulator means a device that—

- (i) Is a full-size aircraft cockpit replica of a specific type of aircraft, or make, model, and series of aircraft;
- (ii) Includes the hardware and software necessary to represent the aircraft in ground operations and flight operations;
- (iii) Uses a force cueing system that provides cues at least equivalent to those cues provided by a 3 degree freedom of motion system;
- (iv) Uses a visual system that provides at least a 45 degree horizontal field of view and a 30 degree vertical field of view simultaneously for each pilot; and
- (v) Has been evaluated, qualified, and approved by the Administrator.

Flight training device means a device that—
(i) Is a full-size replica of the instruments, equipment, panels, and controls of an aircraft, or set of aircraft, in an open flight deck area or in an enclosed cockpit, including the hardware and software for the systems installed, that is necessary to simulate the aircraft in ground and flight operations;

- (ii) Need not have a force (motion) cueing or visual system; and
- (iii) Has been evaluated, qualified, and approved by the Administrator.



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