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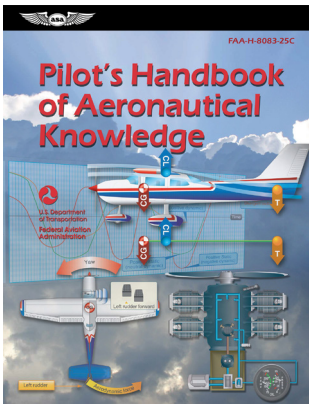
UPDATE

Pilot's Handbook of Aeronautical Knowledge



The following addendum, dated October 2025, revises FAA-H-8083-25C, *Pilot's Handbook of Aeronautical Knowledge*, published by the FAA in 2023.

FAA
Flight Standards Service
General Aviation & Commercial Division
Training & Certification Group
Testing Standards Section

FAA-H-8083-25C, Pilot's Handbook of Aeronautical Knowledge—Addendum

Due to the Modernization of Special Airworthiness Certification (MOSAIC) Rule, which was published on July 18, 2025, and is effective October 22, 2025, the FAA created this addendum to the Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25C. Until the revision of FAA-H-8083-25 is published, this addendum is considered part of the current edition of the handbook and should be used as a reference.

Note: Light-sport aircraft category, as it pertains to aircraft certification, has not changed (refer to 14 CFR part 21). However, with the publication of the MOSAIC rule published on July 18, 2025, the aircraft performance criteria for which sport pilots may fly are now located in 14 CFR part 61, subpart J and subpart K.

*The following will be removed from **Chapter 1, Introduction to Flying**, Aircraft Classifications and Ultralight Vehicles section (Page 1-15) due to the removal of the definition of light-sport aircraft from 14 CFR part 1, section 1.1:*

Light-sport aircraft (LSA)—an aircraft, other than a helicopter or powered-lift that, since its original certification, has continued to meet the definition in 14 CFR 1.1. (LSA can include airplanes, airships, balloons, gliders, gyroplanes, powered parachutes, and weight-shift-control.)

*The following will be revised in **Chapter 1, Introduction to Flying**, Pilot Certifications: Sport Pilot section. (Pages 1-16 & 1-17):*

- *Due to the requirements of 14 CFR part 61, section 61.313, in the first set of bullets on page 1-16, the bullet that states, "Rotorcraft (gyroplane only)" will change to state, "Rotorcraft Gyroplane" and a new bullet will be added that states, "Rotorcraft Helicopter – Simplified Flight Controls: 30 hours."*

- *Due to the requirements of 14 CFR part 61, section 61.303, in the second set of bullets on page 1-16, the last bullet will change to state, "Hold a valid US driver's license, a valid medical certificate, or comply with BasicMed, except for glider or balloon privileges."*

- *Due to the addition of 14 CFR part 61, section 61.316, in the "Privileges" subsection on page 1-16, the first bullet will change to state, "Operate as pilot in command of an aircraft that complies with 14 CFR part 61, section 61.316."*

- *Due to the addition of 14 CFR part 61, section 61.316, in the "Privileges" subsection on page 1-16, the second bullet will change to state, "Carry a passenger (maximum two occupants) and share expenses (fuel, oil, airport expenses, and aircraft rental)."*

- *Due to the requirements of 14 CFR part 61, section 61.329, in the "Privileges" subsection on page 1-16, the last bullet will have the following text added to the end of the statement:*

  (night operations are prohibited unless training and endorsement is received, per 14 CFR part 61, section 61.329)

- *Due to the requirements of 14 CFR part 61, section 61.315, and due to the addition of 14 CFR part 61, section 61.316, in the "Limitations" subsection on page 1-17, new bullets will be added that say the following:*

  - Maximum 10,000 feet MSL or 2,000 feet AGL, whichever is higher
  - For more information regarding sport pilot privileges and limits, refer to 14 CFR part 61, sections 61.315 and 61.316

- *Due to the requirements of 14 CFR part 61, sections 61.313 and 61.317, in the "Limitations" subsection on page 1-17, the paragraph after the bulleted list will be revised as follows:*

The sport pilot certificate does not list aircraft category and class ratings. After successfully passing the practical test for a sport pilot certificate, regardless of the sport pilot privileges you seek, the FAA will issue you a sport pilot certificate. The flight instructor or pilot examiner will provide you with the appropriate logbook endorsement for the category and class of aircraft in which you are authorized to act as pilot in command. However, a person seeking a sport pilot privilege for airplane single-engine land or sea, or rotorcraft helicopter-simplified flight controls must pass a practical test, unless they already hold a respective category and/or class rating.

*Due to the requirements of 14 CFR part 61, section 61.303, in **Chapter 1, Introduction to Flying**, The Student Pilot: Basic Requirements: Medical Certification Requirements section on page 1-20, the title will be revised to "Medical Qualification Requirements" and the first paragraph will be revised as follows:*

The second step in becoming a pilot is to obtain a medical certificate (if the choice of aircraft is an airplane, helicopter, gyroplane, or airship). (The FAA suggests the individual get a medical certificate before beginning flight training to avoid the expense of flight training that cannot be continued due to a medical condition.) Balloon or glider pilots do not need a medical certificate but do need to write a statement certifying that no medical defect exists that would prevent them from piloting a balloon or glider. However, sport pilots may not be required to hold a medical certificate. For more information, refer to 14 CFR part 61, section 61.303. Applicants who fail to meet certain requirements or who have physical disabilities which might limit, but not prevent, their acting as pilots, should contact the nearest FAA office. Anyone requesting an FAA Medical Clearance, Medical Certificate, or Student Pilot Medical Certificate can electronically complete an application through the FAA's MedXPress system available at https://medxpress.faa.gov/.

*In **Chapter 1, Introduction to Flying**, Becoming a Pilot section on page 1-21, the bulleted list will be reordered as follow:*

- Sport Pilot, see subpart J
- Recreational Pilot, see subpart D
- Private Pilot, see subpart E

*Due to the requirements of 14 CFR part 61, section 61.303, in **Chapter 1, Introduction to Flying**, Knowledge and Skill Tests: Practical Test: When to Take the Practical Test section on page 1-23, the third bullet of the bulleted list will be revised as follows:*

- A medical certificate (not required for glider or balloon), a Student Pilot Certificate, and a pilot logbook endorsed by a flight instructor for solo, solo cross-country (airplane and rotorcraft), and for the make and model aircraft to be used for the practical test (sport pilot applicants must have a valid US driver's license, a valid medical certificate, or comply with BasicMed, except for glider or balloon privileges.)

*Due to the removal of the definition of light-sport aircraft from 14 CFR part 1, section 1.1, in **Chapter 3, Aircraft Construction**, the first paragraph of the Introduction section on page 3-1 will be revised as follows:*

An aircraft is a device that is used, or intended to be used, for flight according to the current Title 14 of the Code of Federal Regulations (14 CFR) part 1, Definitions and Abbreviations. Categories of aircraft for certification of airmen include airplane, rotorcraft, glider, lighter-than-air, powered-lift, powered parachute, and weight-shift control aircraft. Title 14 CFR part 1 also defines airplane as an engine-driven, fixed-wing aircraft that is supported in flight by the dynamic reaction of air against its wings. Another term, not yet codified in 14 CFR part 1, is advanced avionics aircraft, which refers to an aircraft that contains a global positioning system (GPS) navigation system with a moving map display, in conjunction with another system, such as an autopilot. This chapter provides a brief introduction to the structure of aircraft and uses an airplane for most illustrations.

*In **Chapter 3: Aircraft Construction**, the Aircraft Design, Certification, and Airworthiness section on page 3-2, will be revised as follows:*

The FAA certifies three types of aviation products: aircraft, aircraft engines, and propellers. Each of these products has been designed to a set of airworthiness standards. These standards are parts of Title 14 of the Code of Federal Regulations (14 CFR), published by the FAA. The airworthiness standards were developed to help ensure that aviation products are designed with no unsafe features. Different airworthiness standards apply to the different categories of aviation products as follows:

- Normal, Utility, Acrobatic, and Commuter Category Airplanes- 14 CFR part 23
- Transport Category Airplanes—14 CFR part 25
- Normal Category—14 CFR part 27
- Transport Category Rotorcraft—14 CFR part 29
- Manned Free Balloons—14 CFR part 31
- Aircraft Engines—14 CFR part 33
- Propellers—14 CFR part 35

Some aircraft are considered "special classes" of aircraft and do not have their own airworthiness standards, such as gliders and powered lift. The airworthiness standards used for these aircraft are a combination of requirements in 14 CFR parts 23, 25, 27, 29, 31, 33, and 35 that the FAA finds appropriate for the aircraft and applicable to a specific type design, or such airworthiness criteria as the FAA may find provide an equivalent level of safety to those parts.

The FAA issues a type certificate (TC) for the product when they are satisfied it complies with the applicable airworthiness standards. When the TC is issued, a type certificate data sheet (TCDS) is generated that specifies the important design and operational characteristics of the aircraft, aircraft engine, or propeller. The TCDS defines the product and are available to the public from the FAA website at www.faa.gov.

*In **Chapter 3: Aircraft Construction**, Aircraft Design, Certification, and Airworthiness: A Note About Light Sport Aircraft, section on page 3-2 will be revised as follows:*

A Note About Light Sport Category Aircraft

Light sport category aircraft are not designed according to FAA airworthiness standards nor issued a TC. Instead, they are designed to consensus standards agreed upon by members of the aviation industry. The FAA must accept these consensus standards prior to their use in the design or manufacture of light-sport category aircraft.

Light-sport category aircraft are designed and built under a manufacturer's quality assurance system. Industry-developed consensus standards for the quality assurance system include the requirements manufacturers must comply with, such as configuration, documentation, and material control, inspections, audits, and personnel training.

When the aircraft is complete, it is inspected, and the FAA issues a special airworthiness certificate if the aircraft is found to be in a condition for safe operation. As part of the airworthiness certificate issuance, the light-sport category aircraft manufacturer provides a statement of compliance to applicable FAA-accepted consensus standards used in the design and manufacture of the aircraft. This airworthiness certificate must be carried in the aircraft during all flight operations. The airworthiness certificate remains effective as long as the duration requirements in 14 CFR section 21.181 for the light-sport category, such as conformity to its original configuration, are complied with.

Airworthiness certificates are classified as either "standard" or "special." Standard airworthiness certificates are issued for normal, utility, acrobatic, commuter, or transport category aircraft. They are also issued for manned free balloons and aircraft designated as "special class."

Special airworthiness certificates are issued for primary, restricted, limited, and light-sport category aircraft. They are also issued as provisional airworthiness certificates, special flight permits (e.g., ferry permits), and for experimental aircraft.

More information on airworthiness certificates can be found in Chapter 9, in 14 CFR part 21, and also on the FAA website at www.faa.gov.

*The following will be revised in **Chapter 6, Flight Controls**, Introduction section:*

- *Due to the removal of the definition of light-sport aircraft from 14 CFR part 1, section 1.1, the first paragraph on page 6-1 be revised as follows:*

This chapter focuses on the flight control systems a pilot uses to control the forces of flight and the aircraft's direction and attitude. It should be noted that flight control systems and characteristics can vary greatly depending on the type of aircraft flown. The most basic flight control system designs are mechanical and date back to early aircraft. They operate with a collection of mechanical parts, such as rods, cables, pulleys, and sometimes chains to transmit the forces of the flight deck controls to the control surfaces. Mechanical flight control systems are still used today in aircraft where the aerodynamic forces are not excessive. [Figure 6-1]

- *Due to the removal of the definition of light-sport aircraft from 14 CFR part 1, section 1.1, the fourth paragraph on page 6-2 will be revised as follows:*

Today's aircraft are equipped with a variety of flight control systems. For example, some aircraft utilized by sport pilots rely on shifting weight while hot-air balloons use a standard burn technique. Helicopters utilize a cyclic to tilt the rotor in the desired direction, along with a collective to manipulate rotor pitch and anti-torque pedals to control yaw. [Figure 6-3]

*In **Chapter 9, Flight Manuals and Other Documents**, the last paragraph of the Aircraft Documents: Airworthiness Certificate section on page 9-8 will be revised as follows:*

A Special Airworthiness Certificate is issued for all aircraft certificated in other than the Standard classifications, such as Experimental, Restricted, Limited, Provisional, and light-sport category aircraft. Light-sport category aircraft receive a pink special airworthiness certificate. When purchasing an aircraft classified as other than Standard, it is recommended that the local FSDO be contacted for an explanation of the pertinent airworthiness requirements and the limitations of such a certificate.

*In **Chapter 9, Flight Manuals and Other Documents**, the last paragraph of the Preventive Maintenance: Examples of Preventive Maintenance section on page 9-12 will be revised as follows:*

Certificated pilots, excluding student pilots, sport pilots, and recreational pilots, may perform preventive maintenance on any aircraft that is owned or operated by them provided that the aircraft is not used in air carrier service and does not qualify under 14 CFR parts 121, 129, or 135. A pilot holding a sport pilot certificate may perform preventive maintenance on an aircraft owned or operated by that pilot if that aircraft is issued a special airworthiness certificate in light sport category aircraft. 14 CFR part 43, appendix A, contains a list of the operations that are considered to be preventive maintenance.

*Due to the requirements of 14 CFR part 61, section 61.303, in **Chapter 17, Aeromedical Factors**, Obtaining a Medical Certificate section on page 17-2, the first paragraph will be revised as follows:*

Pilots exercising sport pilot privileges may hold either a medical certificate or a valid state driver's license, or neither, depending on the category of aircraft being operated. Regardless of whether a medical certificate or driver's license is required, 14 CFR 61.53 requires every pilot not to act as a crewmember if they know, or have reason to know, of any medical condition that would make them unable to operate the aircraft in a safe manner.