

Category and Class

Aircraft Categories

Aircraft categories are different depending on whether you are talking about the aircraft or the pilot's certificate.

Pilot Certificate Categories

- Airplane – Engine-driven, fixed-wing aircraft
- Lighter-Than-Air – Aircraft that uses a gas that is lighter than air in order to rise and remain in the air.
- Powered Parachute – A powered type of aircraft that has a flexible wing, frame and wheels. The wing is not in the proper position or ready to provide lift until the aircraft is moving.
- Rotorcraft – Flight is maintained by one or more spinning rotors.
- Weight-Shift-Control – Also known as a hang glider. This aircraft contains a motor but is only directionally controlled by changes in the center of gravity rather than by control surfaces.

CFR 14 Aircraft Categories

When we talk about [aircraft categories](#) in relation to the size and maneuverability of the aircraft, we are talking about the categories as they are listed under [CFR 14](#).

- Acrobatic – These airplanes have no flight maneuver restrictions other than limitations posed by certain flight tests. They have a maximum of nine seats, not including pilot seats and that weigh no more than 12,500 pounds.
- Commuter – defined as a multi-engine, propeller-driven aircraft with 19 or fewer passenger seats and weighing less than 19,000 pounds.
- Experimental – Issued under a special airworthiness certificate. These aircraft are typically used for research and development, crew training, exhibition, air racing and market surveys. They can also include amateur-built or kit-built aircraft, and they can be light sport or unmanned aircraft.
- Light Sport (LSA) – Operates under a special airworthiness certificate. This is any sport aircraft that does not fall under the designations of kit-built, gyro-plane or transitioning ultralight.
- Limited – reserved for military aircraft that have been converted and/or modified for civilian use.
- Normal – Aircraft contains nine or fewer seats and has a maximum takeoff weight of 12,500 pounds or less. Not approved for acrobatic flight.
- Primary – These aircraft have special airworthiness certificates, and they are manufactured in accordance with a production certificate.

- Restricted – Aircraft designed for a specific use, such as agriculture, forest services, aerial surveying and weather control.
- Transport – More than 10 seats weighing more than 12,500 if jet engine. If piston-engine, greater than 19 seats and a maximum takeoff weight of more than 19,000 pounds.
- Utility – Contains nine seats or less not including pilots and has a maximum takeoff weight of 12,500 pounds or less. These airplanes are approved for limited aerobatics.

Aircraft Classifications

When we talk about aircraft classifications, we are talking about groups of aircraft that have similar flying characteristics when it comes to their propulsion, in-flight handling, and the way they land. Classifications also correspond closer to the airman certificate categories than they do the aircraft categories.

- Airplane – Single-engine land or sea or multi-engine land or sea
- Rotorcraft – helicopter or gyroplane
- Lighter-Than-Air – balloons or airships
- Powered Parachutes – land or sea
- Weight-Shift-Control- land or sea

Aircraft Category, Class, and Type Definitions:

- **Aircraft Category Definition:**

- As used with respect to the certification, ratings, privileges, and limitations of airmen, means a broad classification of aircraft
- As used with respect to the certification of aircraft, means a grouping of aircraft based upon intended use or operating limitations

- **Aircraft Class Definitions:**

- As used with respect to the certification, ratings, privileges, and limitations of airmen, means a classification of aircraft within a category having similar operating characteristics
- As used with respect to the certification of aircraft, means a broad grouping of aircraft having similar characteristics of propulsion, flight, or landing

- **Aircraft Types Definition:**

- As used with respect to the certification, ratings, privileges, and limitations of airmen, means a specific make and basic model of aircraft, including modifications thereto that do not change its handling or flight characteristics. Examples include: 737-700, G-IV, and 1900; and
- As used with respect to the certification of aircraft, means those aircraft which are similar in design. Examples include: 737-700 and 737700C; G-IV and G-IV-X; and 1900 and 1900C

Certification of Airmen:

- **Categories:**

1. *Airplane:*

- An engine-driven fixed-wing aircraft heavier than air, that is supported in flight by the dynamic reaction of the air against its wings
 - Classes:
 - Single-Engine Land
 - Single-Engine Sea
 - Multi-Engine Land
 - Multi-Engine Sea

2. *Rotorcraft:*

- A heavier-than-air aircraft that depends principally for its support in flight on the lift generated by one or more rotors
 - Classes:
 - Helicopter:
 - A rotorcraft that, for its horizontal motion, depends principally on its engine-driven rotors
 - Gyro-plane:
 - A rotorcraft whose rotors are not engine-driven, except for initial starting, but are made to rotate by action of the air when the rotorcraft is moving; and whose means of propulsion, consisting usually of conventional propellers, is independent of the rotor system

3. *Glider:*

- A heavier-than-air aircraft, that is supported in flight by the dynamic reaction of the air against its lifting surfaces and whose free flight does not depend principally on an engine
 - Classes:
 - None

4. *Lighter than air:*

- An aircraft that can rise and remain suspended by using contained gas weighing less than the air that is displaced by the gas
 - Classes:
 - Airship:
 - An engine-driven lighter-than-air aircraft that can be steered
 - Free Balloon:
 - A lighter-than-air aircraft that is not engine driven, and that sustains flight through the use of either gas buoyancy or an airborne heater

5. *Powered lift:*

- A heavier-than-air aircraft capable of vertical takeoff, vertical landing, and low speed flight that depends principally on engine-driven lift devices

or engine thrust for lift during these flight regimes and on non-rotating airfoil(s) for lift during horizontal flight

- Classes:
 - None

6. *Powered parachute:*

- A powered aircraft comprised of a flexible or semi-rigid wing connected to a fuselage so that the wing is not in position for flight until the aircraft is in motion
- The fuselage of a powered parachute contains the aircraft engine, a seat for each occupant and is attached to the aircraft's landing gear
 - Classes:
 - Powered parachute land
 - Powered parachute sea

7. *Weight-shift-control:*

- A powered aircraft with a framed pivoting wing and a fuselage controllable only in pitch and roll by the pilot's ability to change the aircraft's center of gravity with respect to the wing
- Flight control of the aircraft depends on the wing's ability to flexibly deform rather than the use of control surfaces
 - Classes:
 - Weight-shift-control land
 - Weight-shift-control sea

8. *Rocket:*

- An aircraft propelled by ejected expanding gases generated in the engine from self-contained propellants and not dependent on the intake of outside substances
- It includes any part which becomes separated during the operation
 - Classes:
 - Powered parachute land
 - Powered parachute sea

Certification of Aircraft:

- **Categories:**
 - As used with respect to the certification of aircraft, means a grouping of aircraft based upon intended use or operating limitations:
 - Transport
 - Normal
 - Utility
 - Acrobatic
 - Limited
 - Restricted
 - Provisional
- **Classes:**
 - As used with respect to the certification of aircraft, means a broad grouping of aircraft having similar characteristics of propulsion, flight, or landing
 - Examples include:
 - airplane, rotorcraft, glider, balloon, landplane, and seaplane
- **Types:**
 - As used with respect to the certification of aircraft, means those aircraft which are similar in design. Examples include: 737-700 and 737700C; G-IV and G-IV-X; and 1900 and 1900C

Type Ratings:

- A person who acts as a pilot in command of any of the following aircraft must hold a type rating for that aircraft:
 - Large aircraft (except lighter-than-air)
 - Turbojet-powered airplanes
 - Other aircraft specified by the Administrator through aircraft type certificate procedures
- A person may be authorized to operate without a type rating for up to 60 days an aircraft requiring a type rating, provided:
 - The Administrator has authorized the flight or series of flights
 - The Administrator has determined that an equivalent level of safety can be achieved through the operating limitations on the authorization;
 - The person shows that earning a type rating (as shown above) is impracticable for the flight or series of flights and the flight:
 - Involves only a ferry flight, training flight, test flight, or practical test for a pilot certificate or rating;
 - Is within the United States;
 - Does not involve operations for compensation or hire unless the compensation or hire involves payment for the use of the aircraft for training or taking a practical test; and
 - Involves only the carriage of flight crewmembers considered essential for the flight

- If the flight or series of flights cannot be accomplished within the time limit of the authorization, the Administrator may authorize an additional period of up to 60 days to accomplish the flight or series of flights
- Type Rating Limitations: Unless a person holds a category, class, and type rating (if a class and type rating is required) that applies to the aircraft, that person may not act as pilot in command of an aircraft that is carrying another person, or is operated for compensation or hire. That person also may not act as pilot in command of that aircraft for compensation or hire
- To serve as the pilot in command of an aircraft, a person must:
 - Hold the appropriate category, class, and type rating (if a class or type rating is required) for the aircraft to be flown; or
 - Have received training required by this part that is appropriate to the pilot certification level, aircraft category, class, and type rating (if a class or type rating is required) for the aircraft to be flown, and have received an endorsement for solo flight in that aircraft from an authorized instructor