



## **EAA's Guidance for Submitting Comments to the FAA's MOSAIC NPRM**

### **FAA-2023-1377; Modernization of Special Airworthiness Certification, Notice of Proposed Rulemaking**

The FAA's Notice of Proposed Rulemaking (NPRM), titled *Modernization of Special Airworthiness Certification* or MOSAIC, proposes to expand the utility of Light-Sport Aircraft (LSA) and make changes to the operating privileges of Sport Pilots. The NPRM continues EAA's efforts to keep aviation safe, affordable, and accessible by expanding the already successful rules of LSA and Sport Pilots.

In brief, the proposed rule would increase most current regulatory parameters on LSA. The proposal includes changes to the rules for the aircraft (LSA definition), the pilot (Sport Pilot privileges), and maintenance (Light Sport Repairman Maintenance course requirements).

The following is an outline of topics we plan to cover in our organizational comments that may be helpful as you are drafting your own. Please note that this is only a guide—we encourage you to develop your own unique comments that incorporate these topics.

#### **Submit Comments on or Before January 22<sup>nd</sup>, 2024**

#### **General Suggestions**

According to the FAA, "the most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data." It is important to remember that comments and suggestions supported by thoughtful safety justifications have the most impact and best chance of influencing changes to proposed rules. Also, comments have a greater impact if they are reasonable and within the proposed rule's scope. While making recommendations that go beyond the scope of the proposed rule is acceptable, such comments are likely to be discounted for this rulemaking but may be considered in future rulemaking.

#### **EAA's Suggested Areas of Focus for Comment:**

We recommend beginning your comments with a general statement of support for expanding LSA and Sport Pilot. Consider including some of the following key points and expand upon each with your own experiences:

- **Safety:** As stated by the FAA in the proposal, this NPRM builds upon the positive safety record of current LSA and Sport Pilots and provides a clear opportunity for enhancing safety. An increase in the size and weight will provide the opportunity to continue enhancing safety by allowing pilots to operate familiar aircraft while encouraging the inclusion of safety-enhancing equipment. The current limitations force choosing between installing additional safety features,

including equipment, features, and additional structure, while sacrificing handling characteristics, performance, and useful payload to stay under the currently prescribed arbitrary weight limit.

- **Improved Access to Training Aircraft:** This rule will benefit flight schools and their ability to upgrade to newer aircraft with the latest safety-enhancing equipment. This will positively impact safety as well as access to flight training and rental aircraft at local flight schools.
- **Economic Benefits:** The proposed rule will create the basis for new aircraft to enter the market benefitting consumers, manufacturers, maintainers, and airports. These aircraft entering the general aviation marketplace will drive innovation, enhance safety, and lower costs.
- **Workforce Development:** Expanded benefits to workforce development in aviation by providing entry pathways into pilot and aviation maintenance careers through the Sport Pilot and Light-Sport Repairman certificates. This proposed rule will enable a greater array of flight training and aviation career opportunities in every community in America, widening the exposure of aviation as a career path to a broader spectrum of the general public.
- **Innovation:** This rule will remove existing barriers to innovation by expanding the types of aircraft that will fit within the LSA category, supporting both environmental and efficiency developments. Opening up this certification pathway to electric aircraft, rotorcraft, and powered lift will cement America's position as the world leader in general aviation.

In addition to these points, consider including a statement urging the FAA to finalize this rule as expediently as possible, with due consideration to submitted feedback.

The following are areas where EAA will provide specific recommendations to the FAA to enhance the proposal. We encourage members to consider including these areas and to further expand upon the benefits of each in their comments.

## Light-Sport Aircraft

### Stall speed

- **FAA Proposal:**
  - This proposed rule eliminates the current maximum takeoff weight limitation of 1320 lbs. and increases  $V_{s1}$  (stall speed in the clean configuration) (airplane) from 45 knots CAS to 54 knots CAS.
- **Recommendation:**
  - Support the removal of the maximum takeoff weight.
  - Increase the stall speed to a minimum of 57 knots  $V_{s1}$ .
  - Ensure the FAA has the flexibility to consider additional safety enhancements, such as crash worthiness, as a means to define expanded Light-Sport Aircraft parameters.
- **Justification:**
  - An increase to 57 knots  $V_{s1}$  stays within proximity of FAA's goal for size and scope of aircraft. The current proposed speed of 54 knots indiscriminately handicaps the desired capabilities and types of aircraft.
  - A higher  $V_{s1}$  enables a higher  $V_A$ , which is a significant safety factor. Allowing aircraft a greater safety range in which it will not exceed structural limits is very desirable.

- An increased  $V_{s1}$  expands the number of existing popular aircraft that are accessible to Sport Pilots and those exercising Sport Pilot privileges, allowing existing pilots to fly aircraft with which they are familiar.
- An increase in  $V_{s1}$  allows new LSA designs to handle in a more traditional manner, similar to legacy aircraft.

#### LSA seat count

- FAA Proposal:
  - The proposed rule raises the allowable seat count from 2 seats to 4 seats for fixed-wing airplanes.
- Recommendation:
  - Support the increase in LSA airplanes allowing up to 4 seats.
- Justification:
  - Consistent with the FAA's analysis of the safety record of LSA, we support the expansion of size and performance to allow up to 4 seats.
  - The increase to 4 seats allows the LSA to serve as a viable aircraft for recreation, personal transportation, flight training, and flight school rental.
  - Many existing flight schools utilize the "Gemini" method of flight training, whereby two students are partnered and always observing one another during the conduct of a lesson.

#### Part 36 noise certification for aircraft with experimental airworthiness certificates

- FAA Proposal:
  - The proposal discusses the application of Part 36 noise certification requirements to all aircraft without type certificates. That includes aircraft in the experimental category, such as Experimental-Amateur Built (E-AB) and Experimental Light Sport Aircraft (E-LSA), and current Experimental aircraft that are later modified. The FAA is requesting comments on whether any category of aircraft should or should not be subject to Part 36 noise certification requirements.
- Recommendation:
  - Opposition to the application of Part 36: The regulatory requirements of Part 36 noise certification requirements should not be applied to aircraft with experimental airworthiness certificates, including E-LSA and E-AB aircraft as discussed in this NPRM.
- Justification:
  - Applying certification requirements to experimental category aircraft, whether E-LSA, E-AB, exhibition, air racing, etc. negates the purposes of those categories, namely that those categories are for aircraft that are, explicitly, not compliant with the FARs for a variety of reasons. In particular, experimental aircraft are often used to innovate and develop technologies and equipment that end up in certificated aircraft. Applying certification requirements to experimental aircraft would stifle this innovation. There is little demonstrated value in applying Part 36 noise certification and the follow-on requirements for testing to show compliance by individual owners of these categories of

aircraft. The FAA provides no safety justification and little other justification in the proposal to support the significant burden and challenge Part 36 noise certification would impose on owners of these aircraft. The FAA has also provided no evidence demonstrating that current experimental aircraft are a significant contributor to aircraft noise complaints or issues.

- The assertion by the FAA in the NPRM that many E-AB aircraft are “nearly identical” and should thereby be subject to Part 36 is incorrect. Even aircraft built with similar designs are built by individual owners, and each aircraft is unique and may include different configurations, making application and showing compliance to a single standard difficult and costly.
- Demonstrating compliance to Part 36 noise certification is difficult, costly, and time-consuming for aircraft manufacturers. Placing these burdensome requirements on the builders of individual aircraft (E-AB and E-LSA) will impede the growth of this segment by creating additional regulations without demonstrated benefit.

#### Part 36 noise certification for Special Light Sport Aircraft (S-LSA)

- FAA Proposal:
  - The proposed rule applies Part 36 noise certification to S-LSA.
- Recommendation:
  - The regulatory requirement of Part 36 noise certification should also not be applied to aircraft with Special-Light Sport airworthiness certificates (S-LSA). Noise standards, if applied for S-LSA, should follow the FAA’s methodology of utilizing industry consensus standards in a self-declarative process for demonstrating compliance. If needed, the industry standard, accepted by the FAA, is the methodology that should be used to define an appropriate standard and practice for demonstrating compliance.
- Justification:
  - These aircraft are limited in size and are likely to already have a reduced noise profile. The requirement for applying Part 36 to S-LSA would result in an increase in cost with no benefit to safety. The FAA has provided no evidence demonstrating that current S-LSA aircraft are a significant contributor to aircraft noise complaints or issues.
  - Overly constrictive noise certification requirements, such as the application of Part 36, can lead to a detrimental decrease in safety enhancing aircraft performance.
  - The NPRM considers Part 36 to be a level playing field with a performance-based standard, where it is in fact a tilted playing field based on age and weight. Compliance to Part 36 would require new S-LSA aircraft to be quieter than older certificated aircraft already operating, thus penalizing lighter aircraft with more stringent noise requirements.

## Sport Pilot Certificate

### Occupants

- FAA Proposal:
  - The proposal increases maximum seat capacity for airplanes that Sport Pilots can operate to 4 seats.
  - Sport Pilots retain the limitation of a single passenger (2 occupants).
- Recommendation:
  - Support the increase in maximum seat capacity for airplanes that a Sport Pilot can operate to 4 seats.
  - Allow Sport Pilots to fly with 3 passengers (4 occupants) to match the aircraft seat count.
- Justification:
  - Safety risk management is defined as analyzing the hazard and the likelihood of a given risk. If operating a 4-place aircraft requires the same skills as necessary for the operation of a 2-place aircraft and the probability of utilization of the third or fourth seat is low, then the increase in risk of allowing a Sport Pilot to carry 3 passengers is so low that it does not justify the 1 passenger restriction. The proposed aircraft performance limitations adequately manage the risk.
  - As noted in the NPRM, the FAA contends that the skills necessary to operate 2 seat airplanes versus 4 seat airplanes do not differ, due to the similarity in design, weight, and operational capabilities. Therefore, the skills necessary to operate with one passenger are not appreciably different than those necessary to operate with 3 passengers.

### Night operations

- FAA Proposal:
  - Night operations can be added for Sport Pilots by meeting certain training experience requirements and obtaining an endorsement from an authorized instructor.
  - Sport Pilots operating at night must hold either a medical certificate issued under Part 67 or meet the requirements of BasicMed.
- Recommendation:
  - Support adding night operations to Sport Pilot privileges by meeting certain training experience requirements and obtaining an endorsement from an authorized instructor.
  - Support an alternative means to ensure a sport pilot's ability to fly at night safely without requiring a medical certificate or BasicMed.
  - An alternative means should include a simplified night vision test completed by any state-licensed physician that indicates the ability to operate at night safely. A record of this validation should be kept in the pilot's logbook.
  - Pilots who have previously held a medical certificate at any time, and who have had no significant changes to their vision, should not be required to provide any additional medical certification to fly at night.
- Justification:

- The addition of operating privileges by way of training and endorsements is a proven successful method as demonstrated by various levels of pilot certification.
- Only a small percentage of the standards for a 3<sup>rd</sup> class medical certificate relate to the ability to fly at night, of which each can adequately be evaluated by any licensed healthcare provider.
- The predominant issue tested on the 3<sup>rd</sup> class medical with respect to night vision is color vision. Color vision is congenital and inherently stable regardless of age in the absence of eye disease.

## **Light-Sport Repairman Certificate**

### **Maintenance Course**

- **FAA Proposal:**
  - Replace the currently specified aircraft class and training hour requirements for a Maintenance rating with a performance-based standard.
  - Require training courses to, at a minimum, include the knowledge, risk-management, and skill elements for each subject contained in the Mechanic Airman Certification Standard (ACS) as appropriate to the category of aircraft being taught.
  - Removing the 120-hour requirement for a maintenance rating training course for each category of aircraft.
  - The Light-Sport Repairman Inspection (LSRI) certificate remains unchanged by the proposed rule.
- **Recommendation:**
  - Maintain the existing requirements and structure including the basic hour requirements for the Light-Sport Repairman Maintenance (LSRM) and LSRI courses.
  - Supplement existing LSRM courses with manufacturer provided maintenance information specific to aircraft components and technologies, such as retractable gear, constant speed propellers, and new propulsion systems.
- **Justification:**
  - The FAA provides no data-supported safety justification for changing the requirements for the existing LSRM course.
  - Light-Sport Repairmen are already trained to use manufacturer-provided maintenance manuals to follow step by step instructions on LSA maintenance.
  - Concern that the proposed changes will drive cost and complexity of the currently successful program without an increase in safety.

While the above list contains the points of most significance to the majority of our members, the proposal includes many other changes. These include the addition of new categories such as helicopters, gyroplanes, and powered lift as well as other changes such as right of way rules and restricted category aircraft. Members interested in these topics should review and respond to these additional areas as proposed. Areas of consideration include:

- Sport Pilot Helicopter rating
  - The requirement for helicopters that Sport Pilots can fly to be built under LSA and with “Simplified Flight Controls”
- LSA seating capacity (other than airplane)
  - The restriction for types of LSAs other than airplanes to 2 seats

EAA recommendations for consideration:

- Remove the requirement for “Simplified Flight Controls” from helicopters that Sport Pilots can fly
- Increase the seating capacity for all types of LSAs to 4 seats in parallel to airplanes

**How to Submit Comments to the Docket:**

Send comments identified by docket number FAA–2023–1377 using any of the following methods:

- **Federal eRulemaking Portal:** Go to <https://www.regulations.gov/document/FAA-2023-1377-0001> and follow the online instructions for sending your comments electronically.
- **Mail:** Send comments to Docket Operations, M–30; U.S. Department of Transportation (DOT), 1200 New Jersey Avenue SE, Room W12–140, West Building Ground Floor, Washington, DC 20590–0001.