European Union Aviation Safety Agency

Light Sport Aircraft

How does EASA deal with Light Sport Airplanes?

Answer

A Light Sport Airplane (LSA) is a simple two-seater with a maximum take-off weight of 600kg. Commission Regulation (EC) No 748/2012 (Part 21) issued on August 2012, introduced a new process for the European Light Aircraft (ELA) that, together with the certification specifications CS-LSA published in 2011, create a lighter regulatory regime for the EASA certification of LSA aircraft.

Before the ELA process was in place an EASA Permit to Fly (PtF) according to Regulation (EC) No 1702/2003 (as amended by Regulation 375/2007) Part 21A.701 (15) was an option. The principles for the issuance were based on the rulemaking task MDM.032. With the new ELA process a PtF according to 21A.701(15) is no longer appropriate and the approval of flight conditions will be gradually stopped during the next 2 years and 6 month period. During this transition period all the LSA aircraft flying under PtF will need to obtain a normal or restricted Certificate of Airworthiness, after inspection and, if necessary, modification. The conditions and time schedule for the transition period are explained in the following document:

- LSA transition period

Permit to Fly principles:

1. The ASTM Standard for light sport aircraft is accepted as a "certification" basis for issuing a permit to fly following Part21A.701 (15) until such regulations are in place in Europe.
2. The permit to fly will have a limited validity (2 years) and will not be extended when ELA-rules are in place in Europe.
3. A permit to fly based on Part 21A.701 (15) is only valid for non commercial activities according to the Basic Regulation .
4. There is no automatic transfer of these PtF into another kind of EASA approval. As an EASA certification following ELA processes will be appropriate in future the PtF has to be replaced.
5. Showing of compliance (load analysis, static test, flight test etc.) has to be done and the EASA needs to be satisfied that the aircraft is able to perform safe flights when operated according to the approved flight conditions. The approval can only be granted for the MTOM for that the showing of compliance with the requirements is valid.

6. The involvement of the "holder of the type design" is required for establishing the flight conditions as the future regulation will define some kind of TC and TC-Holder obligations according to Part 21 and the showing of compliance with ASTM Standard requires detailed knowledge of the design. In absence of a TC-Holder private owners need to organize themselves and find an acceptable organisation performing the required "certification" activities.
7. For the first application a more detailed review of the documentation for ASTM "Certification" will be done and flight conditions will be developed. For the following applications the process can be simplified and the agreed flight conditions can be approved when manufacturing documentation and inspection reports are submitted.
8. With approved flight conditions registration of the aircraft is possible in all EU member states.
9. Pilot licence needed is at least the national licence for an aeroplane in that weight category.
10. A maintenance regime has to be defined following basic principles of "new" Part-M.
11. Limitations will prohibit at least IFR, Night VFR, Aerobatics, Solo-Training.
12. Modifications of the aircraft require a new approval of flight conditions.

Alternative (Restricted) Type Certification

As there are still some open issues left e.g. for issue of CofA for such PtF aircraft an alternative way should be mentioned. Without ELA processes there is already the possibility to get a certification for products not fully conforming to CS-VLA and Part 21.

1. As the ASTM Standard needs to fulfil the essential airworthiness requirements of Basic Regulation it can be applied using a special condition with public consultation.
2. When engine and propeller have no type certification EASA has already the option to accept a restricted type certification for such an aircraft.
3. Holder of such an (restricted) TC needs to demonstrate their capability through design organisation approval (DOA) or alternative procedures to DOA.
4. Manufacturing requires production organisation approval
5. Maintenance needs to be done according to Part-M.

EASA Definition Light Sport Aeroplane

Light Sport Aeroplane complies with the following criteria:

1. A Maximum Take-Off Mass of not more than 600 kg
2. A maximum stalling speed in the landing configuration (VS0) of not more than 45 knots CAS at the aircraft's maximum certificated Take-Off Mass and most critical centre of gravity.

3. A maximum seating capacity of no more than two persons, including the pilot.
4. A single, non-turbine engine fitted with a propeller.
5. A non-pressurised cabin

These specifications apply to aeroplanes intended for "non-aerobatic" and for "VFR day" operation only.

The airworthiness code is ASTM International standard F2245.

The Multi-Disciplinary Measure (MDM) group MDM.032 is working on proposals to reduce the regulatory burden on these recreational aircraft. These changes to the regulations, when in place, will replace the interim measures set out above.

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Link:

https://www.easa.europa.eu/en/faq/19386