



January 19, 2016

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RE: AC 90-114A CHG 1, Automatic Dependent Surveillance-Broadcast Operations

The Experimental Aircraft Association (EAA) is the world leader in recreational aviation. With an international membership of more than 190,000 people in over 100 nations, EAA brings together pilots, aircraft builders, owners, and aviation enthusiasts who are dedicated to sharing *the Spirit of Aviation* by promoting the continued growth of aviation, the preservation of its history and a commitment to its future.

EAA appreciates the opportunity to comment on FAA Advisory Circular (AC) 90-114A Change 1. To begin, EAA is pleased to see that the policy work it has undertaken with the FAA and industry through the Equip 2020 working group has been incorporated into this change. This work has cleared the way for inexpensive ADS-B installations in experimental category aircraft.

One area of recreational aviation that still has a pressing need for more accommodating policy is Special Light-Sport Aircraft (S-LSA). These aircraft cannot be modified without the approval of the manufacturer or “a person acceptable to the FAA” (14 CFR 91.327(b)(5)). For some S-LSAs, the manufacturer may be out of business (creating an “orphaned” aircraft) or it may be unwilling to approve a specific change. A recent survey by the Small Airplane Directorate found little to no support among existing manufacturers for retrofitting ADS-B equipment on existing designs.

The only recourse an operator would have for the above would be to redesignate their aircraft as an Experimental Light-Sport Aircraft (E-LSA) – this is troublesome as it involves greater expense for insurance, operational restrictions on the aircraft and a great devaluation of the aircraft itself. Also, by placing an LSA into experimental status, fleet safety may suffer as requirement to strictly adhere to the approved Standard is longer present

ADS-B compliance is such a critical issue to the general aviation community that every avenue should be pursued in enabling equipage in S-LSA. EAA therefore submits the following proposal to the record as a means to leverage the “person acceptable to the FAA” clause of 14 CFR 91.327(b)(5) to allow ADS-B equipage in S-LSA without manufacturer oversight.

Recommendation:

AIR-100 would designate Chicago ACO as being an “entity acceptable to the FAA” to approve alterations and repairs to S-LSA. Chicago could then approve these alterations using a process similar to that already in place for evaluating field approvals.

This program would be similar in concept and precedence to the successful angle of attack (AoA) program now in place and could leverage the guidance already in place in FAA order 8900.16 for eligibility for approvals outside of the STC process.

This proposal requires neither rulemaking or policy/order changes and would have an immediate and positive impact on both safety and viability of the existing S-LSA fleet.

Proposed Procedure:

1. Owner operators or maintainers of LSA aircraft would document their proposed alteration on a FAA Form 337 along with a statement indicating that the proposed alteration/repair meets the requirements of both the current ASTM Standard and the original Certified ASTM standard for the aircraft and submit this to the Chicago ACO.
2. Chicago ACO will evaluate the criticality of the above request.
 - a. If the request meets the criteria for a minor alteration (as defined by 14 CFR 43 Appendix A and 14 CFR 1.1) and meets the criteria for a minor change in type design (14 CFR 21.93) than the applicants statement of compliance will be accepted without further review and Chicago ACO will furnish the applicant a letter approving the proposed alteration under 14 CFR 91.327 B(5).
 - b. If the alteration meets the criteria for a major alteration than Chicago ACO will consult the current version of FAA Order 8300.16, Field Approval Job Aid.
 - If the alteration meets the criteria for an alteration designated as either EVL or ENG, Chicago ACO will then evaluate the proposed Alteration/Repair using the criteria of both current ASTM Standard and the original Certified ASTM standard. Depending on the results of this evaluation Chicago ACO will issue a letter to the applicant either approving the alteration/repair as detailed in item a above or issue a letter explaining why the proposal cannot be approved as originally submitted.
 - If the alteration meets the criteria for an alteration designated as STC, Chicago ACO will issue a letter to the applicant letter explaining why the proposal cannot be approved as originally submitted.
3. If the alteration meets the criteria for a major change in type design as defined by 14 CFR 21.93, Chicago ACO will issue a letter to the applicant letter explaining why the proposal

cannot be approved as originally submitted. When evaluating this aspect, it is permissible to apply policy guidance which clarifies 14 CFR 21.93. Examples of this include AIR-100 AoA policy and Small Aircraft Directorate Attitude Indicator and NORSEE Policy.

4. Chicago ACO will assign specific engineers to evaluate LSA requests. Because of the unique and safety critical aspects of LSA aircraft, Chicago ACO will only assign Aerospace Engineers possessing the minimum qualifications of possessing a current FAA Airframe and Powerplant certificate with Inspection authorization along with a minimum of a Commercial Pilots (or ATP) which authorizes them to operate a LSA aircraft. These additional credentials are considered to be vital to insure that evaluating engineers are familiar with both LSA maintenance practices and LSA operations to insure a full and complete safety review.

Thank you for your consideration of this important matter facing the sport flying community. If you have any questions please do not hesitate to contact me.

Respectfully,

A handwritten signature in black ink that reads "Sean E. Elliott". The signature is written in a cursive style with a large, stylized 'S' and 'E'.

Sean Elliott
Vice President, Advocacy and Safety