

# **Scheme Manual for Light Sport Aircraft**

## **Personnel Certificate Program**



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# SCHEME MANUAL FOR LIGHT SPORT AIRCRAFT PERSONNEL CERTIFICATE PROGRAM

## 1. Preface

1.1 *Introduction*—ASTM administers the Light Sport Aircraft Personnel Certificate Program. The ASTM Technical Training and E-Learning Department developed a two-day training program on the proper application of ASTM Committee F37 standards and processes to the design, production, and operation of light sport aircraft (LSA). The Personnel Certificate Program will leave the student with an understanding of:

- 1.1.1 Whether there is adequate substantiation to show compliance to the applicable standards set forth in the ASTM standards for light sport aircraft;
- 1.1.2 The requirements to obtain LSA certification, inclusive of design, performance, quality, and continued operational safety;
- 1.1.3 The various materials that shall be provided with the sale of an ASTM compliant aircraft; and
- 1.1.4 The responsibilities and duties of an ASTM compliant aircraft manufacturer.

## 2. References

- F2245 Specification for Design and Performance of a Light Sport Airplane
- F2279 Practice for Quality Assurance in the Manufacture of Fixed Wing Light Sport Aircraft
- F2295 Practice for Continued Operational Safety Monitoring of a Light Sport Aircraft
- F2316 Specification for Airframe Emergency Parachutes for Light Sport Aircraft
- F2317/F2317M Specification for Design of Weight-Shift-Control Aircraft
- F2339 Practice for Design and Manufacture of Reciprocating Spark Ignition Engines for Light Sport Aircraft
- F2483 Practice for Maintenance and the Development of Maintenance Manuals for Light Sport Aircraft
- F2564 Specification for Design and Performance of a Light Sport Glider
- F2745 Specification for Required Product Information to be Provided with an Airplane
- F2746 Specification for Pilot's Operating Handbook (POH) for Light Sport Airplane
- F2840 Practice for Design and Manufacture of Electric Propulsion Units for Light Sport Aircraft

## 3. ASTM Staff

3.1 *Department on Certification Programs*—The Department shall have overall administrative and management responsibility for the ASTM Light Sport Aircraft Personnel Certificate Program and perform the following functions:

- 3.1.1 *Staff Support*—Coordinate ASTM staff support to the Technical Advisory Committee (TAC).
- 3.1.2 *Forms*—Develop all forms required to operate the certificate program.
- 3.1.3 *Budget and Finance*—Develop and supervise the budget and financial matters for the

program.

#### **4. Technical Advisory Committee (TAC)**

4.1 *Membership*—The TAC for the ASTM Light Sport Aircraft Certificate Program consists of the following:

- 4.1.1 A representative from Committee F37 on Light Sport Aircraft,
- 4.1.2 One member from the user community,
- 4.1.3 One Civil Aviation Authority (CAA) member,
- 4.1.4 One member from the service provider community in the LSA industry, and
- 4.1.5 One member from an industry association.

4.2 *Responsibilities*—The TAC is responsible for the development of this manual that contains detailed information for the certificate program including: program description and rationale, applicant education and experience requirements, core competencies an applicant shall master to receive a certificate, the type of evaluation to be used, and the length of time a certificate issued under this program is valid in accordance with 7.8.

4.3 *Changes to the Scheme Manual for the ASTM Light Sport Aircraft Certificate Program*—Anyone may provide recommended changes to this manual. Recommended changes are sent to the Department of Certification Programs at: cert@astm.org. All recommended changes shall be forwarded to the TAC for review and approval. All changes shall obtain final approval from the Committee on Certification Programs (CCP).

#### **5. Governing Documents of the ASTM Light Sport Aircraft Personnel Certificate Program**

5.1 *General*—Participants are required to abide by the provisions of all of the governing documents, including any legal and accounting requirements. Failure to do so will result in program violations or ineligibility to participate or reapply for a new certificate upon expiration or both.

5.2 *General Operations Manual for ASTM Personnel Certificate Programs (General Operations Manual)*—In the *General Operations Manual*, the procedures and policies that are common to all ASTM personnel certificate programs are outlined. The current version of the manual is available on the ASTM website. Participants are notified whenever substantive changes are made to the manual.

5.3 *Scheme Manual for ASTM Light Sport Aircraft Personnel Certificate Program (Scheme Manual)*—This *Scheme Manual* contains additional procedures and policies that are relevant to this specific program. Whenever the *General Operations Manual* and the *Scheme Manual* differ, this *Scheme Manual* shall prevail. The current version of this manual is available on the ASTM website. Participants are notified whenever substantive changes are made to this manual.

5.4 *ASTM Directory of Certificate Holders*—Participants receiving a certificate under this

program are listed in the *ASTM Directory of Certificate Holders* on the ASTM website. This directory is available to the general public and includes the following information:

5.4.1 *Certificate Holder*—Last name, first name, and middle initial.

5.4.2 *Certificate Holder contact info* – Phone number and email address of Certificate Holder

5.4.3 *Certificate Issue Location*—City, state, and country where the ASTM Light Sport Aircraft training course on Committee F37 standards was attended and the examination taken.

5.4.4 *Certificate Identification*—Unique certificate identification number.

5.4.5 *Certificate Expiration Date*—See 7.8.

## **6. Participant Contacts**

6.1 *Contact Information*—It is the responsibility of each ASTM Light Sport Aircraft Certificate Program participant to maintain current contact information and notify ASTM immediately of any changes.

## **7. ASTM Light Sport Aircraft Personnel Certificate Program Process**

7.1 *Program Description and Rationale*—The ASTM Light Sport Aircraft Certificate Program is designed to verify that individuals are able to understand and determine whether an aircraft design and the manufacturer's operations and processes meet the requirements set forth in the ASTM standards for light sport aircraft as well as the relevant regulatory framework. This course aims to educate industry on the standards, how they are used, and best practices to help minimize potential negative actions by the authorities through robust demonstration of compliance.

7.1.1 There is a need for training and a certificate program so that trained manufacturers (and their agents and dealers) are properly signing off on statements of compliance and aircraft records. Additionally, training is needed to enhance the understanding of manufacturers in complying with design, production, and continued airworthiness requirements.

7.1.2 The results of an independent assessment of LSA manufacturers completed in May 2010 indicated a lower than expected level of compliance with Committee F37 standards. Based on that assessment, the Federal Aviation Administration (FAA) requested that Committee F37 develop a program for which an LSA manufacturer could show that it had established and now maintains a staff of persons who have received a certificate from an internationally recognized organization for the use and implementation of industry consensus standards. Executive Subcommittee F37.90 endorsed the proposal as an ASTM Personnel Certificate Program. Committee F37 is also considering a proposal to require all members of the Quality Assurance Administration to have recurrent training on the content and application of the applicable standards.

7.2 *Recommended Applicant Education or Experience or Both*—There are no minimum requirements for participation in this program. However, it is recommended that the applicant have some experience in design, certification, testing, operation, maintenance, quality, or manufacturing of aircraft or aircraft components. The applicant will benefit more if the self-study

*7.3 Granting of Certificate*—To receive a certificate from this program, the participant shall complete the ASTM Light Sport Aircraft Training Course and pass a 50-question multiple-choice examination. A passing score is answering 40 questions (80 %) or more correctly on the examination.

*7.4 Examination Failure*—A participant who fails to pass the examination will be permitted to retake the examination as part of a future ASTM Light Sport Aircraft Training Course.

*7.5 Application*—Registration for the ASTM Light Sport Aircraft Training Course is completed on the ASTM website. Participants wishing to obtain a certificate select the appropriate option whenever completing the online registration.

*7.6 Reporting Procedures*—Completed examinations are forwarded by the course instructor to the ASTM staff for grading. Staff grades the examinations and determines who will receive a certificate. Participants are notified of the examination results within 30 days of taking the examination. Individuals successfully completing the ASTM Light Sport Aircraft Training Course and examination are listed in the *ASTM Directory of Certificate Holders* on the ASTM website. This directory is available to the general public.

*7.7 Certificate Documentation*—Participants successfully completing the ASTM Light Sport Aircraft Training Course and examination receive a certificate from the Director of Certification Programs containing their name, a unique certificate number, ASTM International identified as the certificate-issuing body, the Light Sport Aircraft Training class reference that they completed to receive their certificate, the scope of the certificate, and the date of expiration.

*7.8 Certificate Validity*—The ASTM Light Sport Aircraft Personnel Certificate is valid for a period of three years. The participants are notified regarding the expiration of their certificates. The TAC shall review the success of the course and evaluate the need for changes to certificate validity at least once every two years.

## **8. Certificate Fees**

*8.1 Certificate Fee*—Individuals wishing to apply for a certificate select the certificate option on the ASTM Light Sport Aircraft Training Course registration page whenever registering for a class and submit a \$95 certificate fee in addition to the registration fee charged for the ASTM Light Sport Aircraft Training Course. This fee covers the costs associated with granting and issuing the certificate.

## **9. Proper Use of the ASTM Light Sport Aircraft Personnel Certificate and Claims to Certificate**

9.1 *Proper Use or Misuse of the Certificate*—Certificate holders shall follow Section 13 of the *General Operations Manual*.

## **10. Comments and Complaints**

10.1 *Registering Comments and Complaints*—Comments and complaints regarding the operation of the ASTM Certificate Program are submitted in writing to the ASTM Department of Certification Programs. Comments and complaints may include claims such as: violations of procedures, non-impartiality, discriminatory conditions, and violations of confidentiality. The comments and complaints are noted in the certificate program's quality system documentation, and the sender receives a written or verbal response regarding ASTM's intended action(s).

## **11. Issuance of Program Violation**

11.1 *Program Violation*—Whenever a certificate holder breaches a term(s) of the ASTM Light Sport Aircraft Personnel Certificate Program's governing documents, the certificate holder receives a program violation letter via certified mail from the Director, Certification Programs. The procedures contained in 14.2 of the *General Operations Manual* shall be followed.

## **12. Appeals**

12.1 *Appealing a Program Violation*—Appeals of a program violation shall follow Section 15 of the *General Operations Manual*.