Designation: F3205 – 16

Standard Practice for Independent Audit Program for Light Aircraft Manufacturers[1]

This standard is issued under the fixed designation F3205; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This practice establishes a minimum set of requirements for a Manufacturer Assessment Independent Audit Program in compliance with Practice F2839.

1.2 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]

E2659 Practice for Certificate Programs

F2839 Practice for Compliance Audits to ASTM Standards on Light Sport Aircraft

2.2 *ISO Standard:*[3]

ISO 9001 Quality Management Systems—Requirements

2.3 *DNV GL Standard:*[4]

AS/EN 9100 Aerospace Quality Management

3. Terminology

3.1 *Definitions:*

3.1.1 *factory assessment audit*—an audit of an aircraft manufacturer and its associate facilities to determine compliance with CAA-accepted consensus standards, and procedures established to meet those requirements.

3.1.2 *finding*—a non-fulfillment of a requirement that may affect the ability of the aircraft manufacturer to comply with the provisions for compliance of the relevant CAA.

4. Significance and Use

4.1 This practice establishes the minimum set of requirements for an independent factory assessment audit program for aircraft manufacturers. The intended use is to provide minimum requirements for an initial assessment of manufacturers bringing a new aircraft model to market, or for periodic review of an existing manufacturer's operations if required by relevant Civil Aviation Authority (CAA).

4.2 Compliance to this practice would ensure that the audit program and those who execute it meet the consensus set of minimum requirements and qualifications.

4.3 This practice does not mandate independent factory assessment audits.

4.4 Independent audits are to be conducted only at the request of the manufacturer or relevant CAA.

5. Audit Criteria

5.1 *Initial Assessment*—When performing an initial assessment audit of an aircraft manufacturer, the auditor(s) shall review compliance to the consensus standards for the aircraft being produced.

5.1.1 The auditing entity shall verify that the referenced consensus standards are appropriate and accepted by the relevant CAA.

5.1.2 At a minimum, the auditor(s) shall assess compliance to the following processes as applicable to the category of aircraft being produced:

5.1.2.1 Aircraft Design and Performance;

5.1.2.2 Aircraft Operating Instructions;

5.1.2.3 Aircraft Maintenance and Inspection Procedures;

5.1.2.4 Aircraft Flight Training Supplement (as applicable);

5.1.2.5 Manufacturer's Quality Assurance System;

5.1.2.6 Manufacturer's Continued Operational Safety Program;

5.1.2.7 Any specific requirements mandated by relevant CAA.

5.1.3 Assessment of compliance shall be comprehensive and verifiable.

NOTE 1—Assessment of compliance to applicable standards does not require a determination of technical or design merit to be made by the auditing entity.

[1] This practice is under the jurisdiction of ASTM Committee F37 on Light Sport Aircraft and is the direct responsibility of Subcommittee F37.70 on Cross Cutting.

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[2] For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

[3] Available from International Organization for Standardization (ISO), ISO Central Secretariat, BIBC II, Chemin de Blandonnet 8, CP 401, 1214 Vernier, Geneva, Switzerland, http://www.iso.org.

[4] Available from DNV GL, 1400 Ravello Dr., Katy, TX 77449, https://www.dnvgl.us.

5.2 *Periodic Review*—When conducting a periodic review audit, the auditing entity may vary the audit scope to assess compliance to the same standards as an initial assessment audit at a reduced level of review. For example, the audit scope may include only selected audit criteria, selected period under review, or selected portions of the facility or organization.

6. Audit Program Personnel and Responsibilities

6.1 *General*—The auditing entity is responsible to conduct this audit program in accordance with the requirements given in Practice F2839.

6.2 *Personnel*—The Audit Program consists of the following personnel:

6.2.1 Lead Auditor;

6.2.2 Audit Team members, as needed, to conduct the audit; and

6.2.3 Support personnel as required.

6.2.4 The responsibilities and qualifications of these personnel are defined in Practice F2839. Auditors and any support personnel must be familiar with the content of all applicable standards before performing or supporting an audit.

6.3 *Training*—Auditing personnel must have successfully completed, with documented records, a standards certification training program within the preceding four years. The training program must leave the auditor(s) with an understanding of:

6.3.1 Whether there is adequate substantiation to show compliance to the applicable requirements.

6.3.2 The requirements to obtain certification, inclusive of design, performance, quality, and continued operational safety.

6.3.3 The responsibilities and duties of an aircraft manufacturer as defined by the audited standards.

6.4 Acceptable means of compliance to these requirements are:

6.4.1 The Light Sport Aircraft course and personnel certificate training program offered by ASTM International.

6.4.2 Another training program, either internal or external, meeting the requirements of Practice E2659 and the requirements given in this section and audited by an accredited third party.

6.4.3 Another program equivalent to 6.4.1 or 6.4.2.

NOTE 2—Equivalency per 6.4.3 may include programs such as: (*1*) Internal training programs embedded within an ISO 9001 or AS/EN 9100 approved system; (*2*) training programs developed under the supervision of a relevant CAA.

7. Selection and Scheduling of Factory Assessment Audits

7.1 *Audit Schedule Notification*—Unless directed by relevant CAA to address potential safety of flight concerns, the facility to be audited shall receive notification at least 30 calendar days before the start of the audit.

7.2 *Selection of Auditors*—The audit team should consist of auditors who are competent, objective, and independent as defined in Practice F2839.

8. Audit Process

8.1 *Audit Preparation:*

8.1.1 Before the start of an audit, an audit plan will be developed in accordance with Practice F2839.

8.1.2 *Lead Auditor Responsibilities*—The lead auditor coordinates with:

8.1.2.1 A representative of the facility to be audited to ensure administrative and logistical arrangements for items such as unrestricted access, escorts, meeting rooms, and safety and security requirements are complete; and

8.1.2.2 Audit Team members and CAAs as needed to facilitate administrative and logistical travel and audit preparation information.

8.1.3 The lead auditor and all team members meet before starting the audit, usually at the facility to be audited. This pre-audit team meeting is the forum for the lead auditor to review team assignments and supplement them if necessary.

8.2 *Executing the Audit:*

8.2.1 Audit communications and data gathering protocols shall be conducted in accordance with Sections 7 and 8 of Practice F2839.

8.2.2 Any findings will be documented before the conclusion of the audit in accordance with Section 9 of Practice F2839.

8.3 *Post-Audit Reporting Activities:*

8.3.1 *Corrective Action and Follow-Up:*

8.3.1.1 *Post-Audit Letter*—The audited entity will receive a post-audit letter indicating the results of the audit activity. The letter should include communicating any findings which may impact the aircraft manufacturer's ability to complete and certify aircraft.

8.3.1.2 *Request for Corrective Action*—The post-audit report will request corrective action for any findings.

8.3.1.3 The post-audit letter should be delivered within 30 calendar days of the audit, or within the timeline agreed upon in the audit plan.

8.3.1.4 *Verification of Corrective Actions*—Onsite verification of corrective actions may occur when it is not possible to confirm corrective actions via written, electronic, or other correspondence.

8.3.1.5 *Final Audit Report*—Once findings and corrective actions have been resolved, a letter will be sent to the manufacturer confirming completion of the audit and communicating the manufacturer's completion of the audit and resolution of any findings. This should be completed within 90 calendar days of the on-site audit and may be extended if corrective actions need additional time to complete.

8.3.1.6 Courtesy copies of the final audit report may be provided to the appropriate CAA office by the audited entity. These evaluations, when shared with the relevant CAA, may be used as the basis for product or production approval.

8.3.2 *Lead Auditor Corrective Action Responsibilities:*

8.3.2.1 Coordinates all follow-up actions and correspondence with the manufacturer and any involved CAA geographic office or delegate.

8.3.2.2 Generates and issues corrective action requests and follow-up correspondence.

8.3.2.3 Coordinates, as required, on-site follow-up activities and verification of corrective actions.

8.3.3 *Audit Records:*

8.3.3.1 Audit records will be managed in accordance with Section 10 of Practice F2839.

9. Keywords

9.1 aircraft; audit; CAA; compliance; corrective actions; findings; manufacturer