



Designation: F 2354 – 05a

## Standard Specification for Continued Airworthiness System for Lighter-Than-Air Light Sport Aircraft<sup>1</sup>

This standard is issued under the fixed designation F 2354; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

### 1. Scope

1.1 This specification covers continued airworthiness requirements for the manufacture of lighter-than-air light sport aircraft and their qualification for possible certification.

1.2 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

1.3 *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. Terminology

#### 2.1 Definitions:

2.1.1 *airship*—engine-driven lighter-than-air aircraft that can be steered.

2.1.2 *balloon*—lighter-than-air aircraft that is not engine-driven, and that sustains flight through the use of either gas buoyancy or an airborne heater, or both.

2.1.3 *lighter-than-air aircraft*—aircraft that can rise and remain suspended by using contained gas weighing less than the air that is displaced by the gas.

2.1.3.1 *Discussion*—Airships may include dynamic lift that derive as much as 30 % lift from other than buoyancy.

### 3. Current Operators List Documentation

3.1 A current operators list will be maintained by the manufacturer that includes all aircraft in service by serial number, registration number, together with the name and address of the owner/operator. In order for the special airworthiness certificate for any light sport aircraft to be valid, the

new owner of an aircraft that has transferred ownership must notify the manufacturer or other responsible entity and have the current operators list appropriately updated to include the new owner's name.

### 4. Monitoring, Investigation, and Remedial Action

4.1 The manufacturer shall maintain contact with dealers and owners who report incidents or other situations that might relate to safety, operations, or maintenance of aircraft produced and placed in service. The manufacturer will promptly investigate all reported failures, malfunctions, or defects and develop the appropriate corrective action. The magnitude of the service problem will define the subsequent publication to the operators.

### 5. Safety Directives

5.1 A safety directive will be distributed to all operators when an unsafe condition is found to exist that may also exist in other aircraft in the fleet. A safety of flight bulletin will require an action (change to operational limitations, an inspection, a replacement part or a design change, etc.) to specifically address an unsafe condition within a stated time frame. This required action is mandatory and must be performed and documented in the individual aircraft logs in order for that aircraft to maintain compliance with ASTM standards and continue to operate as an LSA aircraft. Noncompliance with any safety of flight bulletin will, at the minimum, result in the aircraft being put in the experimental category.

5.1.1 Manufacturers must have in place a process to gather and analyze service problems so that safety of flight issues can be addressed in a timely manner. Distribution of printed forms or making E-mail templates available is recommended. The printed form or template (or equivalent method) will provide to the operator a listing of critical malfunctions or failures that must be reported to the manufacturer in an expeditious manner.

5.1.2 Manufacturers must document all service difficulty reports and maintain a record of the analysis justifying the level of response.

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee F37 on Light Sport Aircraft and is the direct responsibility of Subcommittee F37.60 on Lighter Than Air.

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