



Designation: **F3093/F3093M – 15 F3093/F3093M – 19**

Standard Specification for Aeroelasticity Requirements¹

This standard is issued under the fixed designation F3093/F3093M; 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 reappraisal. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reappraisal.

1. Scope

1.1 This specification ~~addresses~~covers the aeroelasticity requirements of the ~~airplane~~aeroplane. ~~The material was developed through open consensus of international experts in general aviation. This information was created by focusing on Level 1, 2, 3, and 4 Normal Category aeroplanes. The content may be more broadly applicable; it is the responsibility of the Applicant to substantiate broader applicability as a specific means of compliance. The topics covered within this document are:~~ 2. Referenced Documents, 3. Terminology, 4. Flutter.

1.2 An applicant intending to propose this information as Means of Compliance for a design approval must seek guidance from their respective oversight authority (for example, published guidance from applicable CAAs) concerning the acceptable use and application thereof. For information on which oversight authorities have accepted this standard (in whole or in part) as an acceptable Means of Compliance to their regulatory requirements (hereinafter “the Rules”), refer to the ASTM Committee F44 web page (www.astm.org/COMMITTEE/F44.htm).

1.3 ~~Units—The values stated—This document may present information in either SI units or inch-pound units are to be regarded separately as standard units, English Engineering units, or both. The values stated in each system may not be necessarily exact equivalents; therefore, to ensure conformance with the standard, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard—shall not be combined.~~

1.4 ~~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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.~~

1.5 ~~This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.~~

2. Referenced Documents

2.1 ~~ASTM Standards:~~²

~~F3061~~F3061/F3061M Specification for Systems and Equipment in Small Aircraft

~~F3065~~F3065M Specification for Aircraft Propeller System Installation

~~F3115~~F3115/F3115M Specification for Structural Durability for Small Airplanes

2.2 ~~Federal Aviation Administration (FAA) Document:~~³

~~Airframe and Equipment Engineering Report No. 45 (as corrected) “Simplified Flutter Prevention Criteria” 1955~~

2.3 ~~Federal Aviation Regulations:~~⁴

~~14 CFR 23 Amendment 62~~

3. Terminology

3.1 ~~Definitions:~~

3.1.1 ~~GVT—ground vibration testing~~

¹ This specification is under the jurisdiction of ASTM Committee F44 on General Aviation Aircraft and is the direct responsibility of Subcommittee F44.30 on Structures. Current edition approved May 1, 2015 Feb. 15, 2019. Published August 2015 March 2019. Originally approved in 2015. Last previous edition approved in 2015 as F3093/F3093M–15. DOI: 10.1520/F3093–F3093M–15-10.1520/F3093_F3093M–19.

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 Federal Aviation Administration (FAA), 800 Independence Ave., SW, Washington, DC 20591, <http://www.faa.gov>. Available from U.S. Government Printing Office Superintendent of Documents, 732 N. Capitol St., NW, Mail Stop: SDE, Washington, DC 20401, <http://www.access.gpo.gov/http://www.faa.gov>.

⁴ Available from U.S. Government Printing Office Superintendent of Documents, Publishing Office, 732 N. Capitol St., NW, Mail Stop: SDE, Washington, DC 20401, <http://www.access.gpo.gov/http://www.gpo.gov>.