Designation: F3264 – 21

Standard Specification for Normal Category Aeroplanes Certification[1]

This standard is issued under the fixed designation F3264; 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 *Applicability:*

1.1.1 This specification identifies the industry standards that have been determined by consensus to demonstrate compliance to the requirements ("the Rules") for Normal Category Aeroplanes.

1.1.2 Only standards that are considered mature enough for general application to certification projects and have been found acceptable by committee consensus to propose to the CAAs for acceptance as a Means of Compliance to their Rules are included.

1.1.3 In the event that a particular CAA's requirements are not harmonized with the other CAA's requirements, the standards will be written to include the non-harmonized requirements as well as the harmonized requirements with the applicability defined in the standard.

1.1.4 In addition to identifying the standards that have been approved by the F44 Committee, the structure of this specification follows the structure of the existing performance/objective-based rules for Normal Category aeroplanes as closely as practical. However, due to differences employed by the authorities in structuring the rules, some sections of this specification may parallel the structure of a particular authority's rules, but not all. The intent was to structure this specification in such a way that the users could identify what standards would be applicable to specific rules with the specifications at the highest level and practices and test methods being at the next level down. Guides that support a specification or practice will be at the next level down from what they support.

1.2 *Civil Aviation Authorities:*

1.2.1 CAAs may accept a specific revision of this specification as an acceptable Means of Compliance (MoC) to their requirements. Acceptance and applicability as a MoC to the CAA's airworthiness rules remains the decision of the respective CAAs. CAAs may accept this specification, with or without limitations as defined in their specification acceptance document. For information on which CAAs have accepted these standards (in whole or in part) as an acceptable MoC to their Rules, refer to the ASTM F44 webpage (www.astm.org/COMMITTEE/F44.htm) which includes CAA website links.

1.3 *Applicant Responsibility:*

1.3.1 The applicant must seek individual guidance from their respective CAA concerning the use of this specification and any referenced Specifications, Practices, Test Methods, or Guides to show compliance to the CAA rules. Alternatively, an applicant may propose a MoC other than those included in this specification but it is their responsibility to obtain acceptance of their proposed MoC from their CAA.

1.4 *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]

NOTE 1—Referenced ASTM standards are listed in Sections 5 – 10 of this specification.

F2490 Guide for Aircraft Electrical Load and Power Source Capacity Analysis

F3060 Terminology for Aircraft

F3061/F3061M Specification for Systems and Equipment in Small Aircraft

F3062/F3062M Specification for Aircraft Powerplant Installation

F3063/F3063M Specification for Aircraft Fuel Storage and Delivery

F3064/F3064M Specification for Aircraft Powerplant Control, Operation, and Indication

F3065/F3065M Specification for Aircraft Propeller System Installation

F3066/F3066M Specification for Aircraft Powerplant Installation Hazard Mitigation

[1] This specification is under the jurisdiction of ASTM Committee F44 on General Aviation Aircraft and is the direct responsibility of Subcommittee F44.10 on General.

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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.

F3082/F3082M Specification for Weights and Centers of Gravity of Aircraft
F3083/F3083M Specification for Emergency Conditions, Occupant Safety and Accommodations
F3093/F3093M Specification for Aeroelasticity Requirements
F3114 Specification for Structures
F3115/F3115M Specification for Structural Durability for Small Aeroplanes
F3116/F3116M Specification for Design Loads and Conditions
F3117/F3117M Specification for Crew Interface in Aircraft
F3120/F3120M Specification for Ice Protection for General Aviation Aircraft
F3173/F3173M Specification for Aircraft Handling Characteristics
F3174/F3174M Specification for Establishing Operating Limitations and Information for Aeroplanes
F3179/F3179M Specification for Performance of Aircraft
F3180/F3180M Specification for Low-Speed Flight Characteristics of Aircraft
F3227/F3227M Specification for Environmental Systems in Aircraft
F3228 Specification for Flight Data and Voice Recording in Small Aircraft
F3229/F3229M Practice for Static Pressure System Tests in Small Aircraft
F3230 Practice for Safety Assessment of Systems and Equipment in Small Aircraft
F3231/F3231M Specification for Electrical Systems for Aircraft with Combustion Engine Electrical Power Generation
F3232/F3232M Specification for Flight Controls in Small Aircraft
F3233/F3233M Specification for Flight and Navigation Instrumentation in Aircraft
F3234/F3234M Specification for Exterior Lighting in Small Aircraft
F3235 Specification for Aircraft Storage Batteries
F3236 Specification for High Intensity Radiated Field (HIRF) Protection in Small Aircraft
F3239 Specification for Aircraft Electric Propulsion Systems
F3254 Specification for Aircraft Interaction of Systems and Structures
F3309/F3309M Practice for Simplified Safety Assessment of Systems and Equipment in Small Aircraft
F3316/F3316M Specification for Electrical Systems for Aircraft with Electric or Hybrid-Electric Propulsion
F3331 Practice for Aircraft Water Loads
F3367 Practice for Simplified Methods for Addressing High-Intensity Radiated Fields (HIRF) and Indirect Effects of Lightning on Aircraft
F3380 Practice for Structural Compliance of Very Light Aeroplanes
F3396/F3396M Practice for Aircraft Simplified Loads Criteria
F3408/F3408M Specification for Aircraft Emergency Parachute Recovery Systems
F3432 Practice for Powerplant Instruments

2.2 *Federal Aviation Administration (FAA) Regulations:*
14 CFR 23, Amendment 64 Airworthiness Standards: Normal Category Airplanes[3]

2.3 *European Aviation Safety Agency (EASA) Regulations:*
CS 23, Amendment 5 Certification Specifications for Normal Category Aeroplanes[4]

NOTE 2—The above regulations and requirements are not directly referenced in the specification but are the "relevant applicable regulations" referred to in the Rules definition in 3.2.2.

3. Terminology

3.1 *Unique and Common Terminology*—Terminology used in multiple standards is defined in F3060, Aircraft Terminology Standard. Terminology that is unique to this specification is defined in this section.

3.2 *Definitions:*

3.2.1 *Means of Compliance (MoC)*—a method or process which is used to show that a rule has been complied with through either design, analysis, test, or a combination of design, analysis and test.

3.2.2 *Rules*—universal reference to the relevant applicable regulations or standards governing airworthiness requirements for Normal Category Aeroplanes issued by the CAAs.

3.3 *Abbreviations:*

3.3.1 *CAA*—Civil Aviation Authority

3.3.2 *MoC*—Means of Compliance

4. General

4.1 *Regulatory Applicability and Definitions:*

4.1.1 See the applicable CAA Rules for specific CAAs Applicability and Definitions. There are currently no standards written or anticipated for these requirements.

4.2 *Certification of Normal Category Aeroplanes:*

4.2.1 This specification will identify in Sections 5 – 10 all standards that are applicable for certifying a Level 1, 2, 3, or 4 Normal Category Aeroplane.

5. Flight

5.1 *Weight/Mass and Centre of Gravity:*

5.1.1 F3082/F3082M – 17 Standard Specification for Weights and Centers of Gravity of Aircraft

5.1.2 F3114 – 21 Standard Specification for Structures

5.2 *Performance Data:*

5.2.1 F3179/F3179M – 20 Standard Specification for Performance of Aircraft

5.3 *Stall Speed:*

5.3.1 F3179/F3179M – 20 Standard Specification for Performance of Aircraft

[3] Available from U.S. Government Publishing Office (GPO), 732 N. Capitol St., NW, Washington, DC 20401, http://www.gpo.gov.

[4] Available from European Aviation Safety Agency (EASA), Postfach 10 12 53, D-50452 Cologne, Germany, https://www.easa.europa.eu/document-library/certification-specifications/cs-23-amendment-5.

5.4 *Takeoff Performance:*
5.4.1 F3179/F3179M – 20 Standard Specification for Performance of Aircraft

5.5 *Climb Requirements:*
5.5.1 F3179/F3179M – 20 Standard Specification for Performance of Aircraft

5.6 *Climb Information:*
5.6.1 F3179/F3179M – 20 Standard Specification for Performance of Aircraft

5.7 *Landing:*
5.7.1 F3179/F3179M – 20 Standard Specification for Performance of Aircraft

5.8 *Controllability:*
5.8.1 F3173/F3173M – 21 Standard Specification for Aircraft Handling Characteristics

5.9 *Trim:*
5.9.1 F3173/F3173M – 21 Standard Specification for Aircraft Handling Characteristics

5.10 *Stability:*
5.10.1 F3173/F3173M – 21 Standard Specification for Aircraft Handling Characteristics

5.11 *Stall Characteristics, Stall Warning, and Spins:*
5.11.1 F3180/F3180M – 19 Standard Specification for Low-Speed Flight Characteristics of Aircraft

5.12 *Ground and Water Handling Characteristics:*
5.12.1 F3173/F3173M – 21 Standard Specification for Aircraft Handling Characteristics

5.13 *Vibration, Buffeting, and High-Speed Characteristics:*
5.13.1 F3173/F3173M – 21 Standard Specification for Aircraft Handling Characteristics

5.14 *Performance and Flight Characteristics Requirements for Flight in Icing Conditions:*
5.14.1 F3120/F3120M – 20 Standard Specification for Ice Protection for General Aviation Aircraft

5.15 *Operating Limitations:*
5.15.1 F3174/F3174M – 19 Standard Specification for Establishing Operating Limitations and Information for Aeroplanes
5.15.2 F3408/F3408M – 21 Standard Specification for Aircraft Emergency Parachute Recovery Systems

6. Structures

6.1 *Structural Design Envelope:*
6.1.1 F3116/F3116M – $18^{\varepsilon 2}$ Standard Specification for Design Loads and Conditions
6.1.1.1 F3396/F3396M – 20 Standard Practice for Aircraft Simplified Loads Criteria

6.2 *Interaction of Systems and Structure:*
6.2.1 F3254 – 19 Standard Specification for Aircraft Interaction of Systems and Structures

6.3 *Structural Design Loads:*
6.3.1 F3116/F3116M – $18^{\varepsilon 2}$ Standard Specification for Design Loads and Conditions
6.3.1.1 F3396/F3396M – 20 Standard Practice for Aircraft Simplified Loads Criteria
6.3.2 F3408/F3408M – 21 Standard Specification for Aircraft Emergency Parachute Recovery Systems

6.4 *Flight Load Conditions:*
6.4.1 F3116/F3116M – $18^{\varepsilon 2}$ Standard Specification for Design Loads and Conditions
6.4.1.1 F3396/F3396M – 20 Standard Practice for Aircraft Simplified Loads Criteria

6.5 *Ground and Water Load Conditions:*
6.5.1 F3116/F3116M – $18^{\varepsilon 2}$ Standard Specification for Design Loads and Conditions
6.5.1.1 F3331 – 18 Standard Practice for Aircraft Water Loads

6.6 *Component Loading Conditions:*
6.6.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft
6.6.1.1 F3232/F3232M – 20 Standard Specification for Flight Controls in Small Aircraft
6.6.2 F3116/F3116M – $18^{\varepsilon 2}$ Standard Specification for Design Loads and Conditions
6.6.2.1 F3396/F3396M – 20 Standard Practice for Aircraft Simplified Loads Criteria

6.7 *Limit and Ultimate Loads:*
6.7.1 F3114 – 21 Standard Specification for Structures
6.7.2 F3408/F3408M – 21 Standard Specification for Aircraft Emergency Parachute Recovery Systems

6.8 *Structural Strength:*
6.8.1 F3114 – 21 Standard Specification for Structures
6.8.2 F3408/F3408M – 21 Standard Specification for Aircraft Emergency Parachute Recovery Systems

6.9 *Structural Durability:*
6.9.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft
6.9.2 F3066/F3066M – 18 Standard Specification for Aircraft Powerplant Installation Hazard Mitigation
6.9.3 F3115/F3115M – 20 Standard Specification for Structural Durability for Small Aeroplanes
6.9.3.1 F3380 – 19 Standard Practice for Structural Compliance of Very Light Aeroplanes
6.9.4 F3116/F3116M – $18^{\varepsilon 2}$ Standard Specification for Design Loads and Conditions

6.10 *Aeroelasticity:*
6.10.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft
6.10.2 F3093/F3093M – 21 Standard Specification for Aeroelasticity Requirements

6.11 *Design and Construction Principles:*
6.11.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft
6.11.1.1 F3232/F3232M – 20 Standard Specification for Flight Controls in Small Aircraft
6.11.2 F3114 – 21 Standard Specification for Structures
6.11.2.1 F3380 – 19 Standard Practice for Structural Compliance of Very Light Aeroplanes

6.11.3 F3408/F3408M – 21 Standard Specification for Aircraft Emergency Parachute Recovery Systems

6.12 *Protection of Structure:*
6.12.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft
6.12.1.1 F3232/F3232M – 20 Standard Specification for Flight Controls in Small Aircraft
6.12.2 F3114 – 21 Standard Specification for Structures
6.12.2.1 F3380 – 19 Standard Practice for Structural Compliance of Very Light Aeroplanes
6.12.3 F3066/F3066M – 18 Standard Specification for Aircraft Powerplant Installation Hazard Mitigation
6.12.4 F3408/F3408M – 21 Standard Specification for Aircraft Emergency Parachute Recovery Systems

6.13 *Materials and Processes:*
6.13.1 F3114 – 21 Standard Specification for Structures
6.13.1.1 F3380 – 19 Standard Practice for Structural Compliance of Very Light Aeroplanes
6.13.2 F3408/F3408M – 21 Standard Specification for Aircraft Emergency Parachute Recovery Systems

6.14 *Special Factors of Safety:*
6.14.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft
6.14.2 F3114 – 21 Standard Specification for Structures
6.14.2.1 F3380 – 19 Standard Practice for Structural Compliance of Very Light Aeroplanes

6.15 *Emergency Conditions:*
6.15.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft
6.15.1.1 F3232/F3232M – 20 Standard Specification for Flight Controls in Small Aircraft
6.15.2 F3083/F3083M – 20a Standard Specification for Emergency Conditions, Occupant Safety and Accommodations
6.15.3 F3408/F3408M – 21 Standard Specification for Aircraft Emergency Parachute Recovery Systems

7. Design and Construction

7.1 *Flight Control Systems:*
7.1.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft
7.1.1.1 F3232/F3232M – 20 Standard Specification for Flight Controls in Small Aircraft
7.1.2 F3066/F3066M – 18 Standard Specification for Aircraft Powerplant Installation Hazard Mitigation
7.1.3 F3117/F3117M – 20 Standard Specification for Crew Interface in Aircraft

7.2 *Landing Gear Systems:*
7.2.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft

7.3 *Buoyancy for Seaplanes and Amphibians:*
7.3.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft

7.4 *Means of Egress and Emergency Exits:*
7.4.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft
7.4.2 F3083/F3083M – 20a Standard Specification for Emergency Conditions, Occupant Safety and Accommodations

7.5 *Occupant Physical Environment:*
7.5.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft
7.5.1.1 F3227/F3227M – 21 Standard Specification for Environmental Systems in Aircraft
7.5.2 F3083/F3083M – 20a Standard Specification for Emergency Conditions, Occupant Safety and Accommodations
7.5.3 F3114 – 21 Standard Specification for Structures
7.5.4 F3117/F3117M – 20 Standard Specification for Crew Interface in Aircraft

7.6 *Fire Protection:*
7.6.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft
7.6.1.1 F3231/F3231M – 21 Standard Specification for Electrical Systems for Aircraft with Combustion Engine Electrical Power Generation
7.6.1.2 F3234/F3234M – 17 Standard Specification for Exterior Lighting in Small Aircraft
7.6.1.3 F3316/F3316M – 19 Standard Specification for Electrical Systems for Aircraft with Electric or Hybrid-Electric Propulsion
7.6.2 F3066/F3066M – 18 Standard Specification for Aircraft Powerplant Installation Hazard Mitigation
7.6.3 F3083/F3083M – 20a Standard Specification for Emergency Conditions, Occupant Safety and Accommodations
7.6.4 F3408/F3408M – 21 Standard Specification for Aircraft Emergency Parachute Recovery Systems

7.7 *Fire Protection in Designated Fire Zones and Adjacent Areas:*
7.7.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft
7.7.1.1 F3231/F3231M – 21 Standard Specification for Electrical Systems for Aircraft with Combustion Engine Electrical Power Generation
7.7.2 F3066/F3066M – 18 Standard Specification for Aircraft Powerplant Installation Hazard Mitigation
7.7.3 F3114 – 21 Standard Specification for Structures

7.8 *Lightning Protection:*
7.8.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft

7.9 *Design and Construction Information:*
7.9.1 F3117/F3117M – 20 Standard Specification for Crew Interface in Aircraft

8. Powerplant

8.1 *Powerplant Installation:*
8.1.1 F3062/F3062M – 20 Standard Specification for Aircraft Powerplant Installation
8.1.2 F3063/F3063M – 20 Standard Specification for Aircraft Fuel Storage and Delivery
8.1.3 F3064/F3064M – 21 Standard Specification for Aircraft Powerplant Control, Operation, and Indication
8.1.4 F3065/F3065M – 21a Standard Specification for Aircraft Propeller System Installation

8.1.5 F3066/F3066M – 18 Standard Specification for Aircraft Powerplant Installation Hazard Mitigation
8.1.6 F3239 – 19 Standard Specification for Aircraft Electric Propulsion Systems

8.2 *Power or Thrust Control Systems:*
8.2.1 F3062/F3062M – 20 Standard Specification for Aircraft Powerplant Installation
8.2.2 F3064/F3064M – 21 Standard Specification for Aircraft Powerplant Control, Operation, and Indication
8.2.3 F3065/F3065M – 21a Standard Specification for Aircraft Propeller System Installation
8.2.4 F3117/F3117M – 20 Standard Specification for Crew Interface in Aircraft

8.3 *Powerplant Installation Hazard Assessment:*
8.3.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft
8.3.2 F3062/F3062M – 20 Standard Specification for Aircraft Powerplant Installation
8.3.3 F3063/F3063M – 20 Standard Specification for Aircraft Fuel Storage and Delivery
8.3.4 F3064/F3064M – 21 Standard Specification for Aircraft Powerplant Control, Operation, and Indication
8.3.5 F3065/F3065M – 21a Standard Specification for Aircraft Propeller System Installation
8.3.6 F3066/F3066M – 18 Standard Specification for Aircraft Powerplant Installation Hazard Mitigation
8.3.7 F3117/F3117M – 20 Standard Specification for Crew Interface in Aircraft
8.3.8 F3239 – 19 Standard Specification for Aircraft Electric Propulsion Systems

8.4 *Powerplant Installation Ice Protection:*
8.4.1 F3062/F3062M – 20 Standard Specification for Aircraft Powerplant Installation
8.4.2 F3063/F3063M – 20 Standard Specification for Aircraft Fuel Storage and Delivery
8.4.3 F3066/F3066M – 18 Standard Specification for Aircraft Powerplant Installation Hazard Mitigation
8.4.4 F3239 – 19 Standard Specification for Aircraft Electric Propulsion Systems

8.5 *Reversing Systems:*
8.5.1 F3062/F3062M – 20 Standard Specification for Aircraft Powerplant Installation
8.5.2 F3065/F3065M – 21a Standard Specification for Aircraft Propeller System Installation
8.5.3 F3239 – 19 Standard Specification for Aircraft Electric Propulsion Systems

8.6 *Powerplant Operational Characteristics:*
8.6.1 F3062/F3062M – 20 Standard Specification for Aircraft Powerplant Installation
8.6.2 F3064/F3064M – 21 Standard Specification for Aircraft Powerplant Control, Operation, and Indication
8.6.3 F3065/F3065M – 21a Standard Specification for Aircraft Propeller System Installation
8.6.4 F3066/F3066M – 18 Standard Specification for Aircraft Powerplant Installation Hazard Mitigation
8.6.5 F3117/F3117M – 20 Standard Specification for Crew Interface in Aircraft
8.6.6 F3239 – 19 Standard Specification for Aircraft Electric Propulsion Systems

8.7 *Fuel and Energy Storage and Distribution Systems:*
8.7.1 F3062/F3062M – 20 Standard Specification for Aircraft Powerplant Installation
8.7.2 F3063/F3063M – 20 Standard Specification for Aircraft Fuel Storage and Delivery
8.7.3 F3064/F3064M – 21 Standard Specification for Aircraft Powerplant Control, Operation, and Indication
8.7.4 F3066/F3066M – 18 Standard Specification for Aircraft Powerplant Installation Hazard Mitigation
8.7.5 F3114 – 21 Standard Specification for Structures
8.7.6 F3239 – 19 Standard Specification for Aircraft Electric Propulsion Systems

8.8 *Powerplant Induction, Exhaust, and Support Systems:*
8.8.1 F3062/F3062M – 20 Standard Specification for Aircraft Powerplant Installation
8.8.2 F3239 – 19 Standard Specification for Aircraft Electric Propulsion Systems

8.9 *Powerplant Installation Fire Protection:*
8.9.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft
8.9.2 F3062/F3062M – 20 Standard Specification for Aircraft Powerplant Installation
8.9.3 F3063/F3063M – 20 Standard Specification for Aircraft Fuel Storage and Delivery
8.9.4 F3064/F3064M – 21 Standard Specification for Aircraft Powerplant Control, Operation, and Indication
8.9.5 F3066/F3066M – 18 Standard Specification for Aircraft Powerplant Installation Hazard Mitigation
8.9.6 F3239 – 19 Standard Specification for Aircraft Electric Propulsion Systems

8.10 *Powerplant Installation Information:*
8.10.1 F3117/F3117M – 20 Standard Specification for Crew Interface in Aircraft
8.10.2 F3174/F3174M – 19 Standard Specification for Establishing Operating Limitations and Information for Aeroplanes

9. Equipment

9.1 *Systems and Equipment Function Requirements:*
9.1.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft
9.1.1.1 F3231/F3231M – 21 Standard Specification for Electrical Systems for Aircraft with Combustion Engine Electrical Power Generation
(a) F3235 – 17a Standard Specification for Aircraft Storage Batteries
9.1.1.2 F3232/F3232M – 20 Standard Specification for Flight Controls in Small Aircraft
9.1.1.3 F3233/F3233M – 21 Standard Specification for Flight and Navigation Instrumentation in Aircraft
(a) F3229/F3229M – 17 Standard Practice for Static Pressure System Tests in Small Aircraft
9.1.1.4 F3316/F3316M – 19 Standard Specification for Electrical Systems for Aircraft with Electric or Hybrid-Electric Propulsion

9.1.2 F3064/F3064M – 21 Standard Specification for Aircraft Powerplant Control, Operation, and Indication

9.1.3 F3066/F3066M – 18 Standard Specification for Aircraft Powerplant Installation Hazard Mitigation

9.1.4 F3117/F3117M – 20 Standard Specification for Crew Interface in Aircraft

9.1.5 F3120/F3120M – 20 Standard Specification for Ice Protection for General Aviation Aircraft

9.1.6 F3408/F3408M – 21 Standard Specification for Aircraft Emergency Parachute Recovery Systems

9.2 *Equipment Function and Installation Requirements:*

9.2.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft

9.2.1.1 F3231/F3231M – 21 Standard Specification for Electrical Systems for Aircraft with Combustion Engine Electrical Power Generation

(a) F3235 – 17a Standard Specification for Aircraft Storage Batteries

9.2.1.2 F3232/F3232M – 20 Standard Specification for Flight Controls in Small Aircraft

9.2.1.3 F3233/F3233M – 21 Standard Specification for Flight and Navigation Instrumentation in Aircraft

9.2.1.4 F3316/F3316M – 19 Standard Specification for Electrical Systems for Aircraft with Electric or Hybrid-Electric Propulsion

9.2.2 F3408/F3408M – 21 Standard Specification for Aircraft Emergency Parachute Recovery Systems

9.3 *Equipment, Systems, and Installation:*

9.3.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft

9.3.1.1 F3230 – 20a Standard Practice for Safety Assessment of Systems and Equipment in Small Aircraft

9.3.1.2 F3233/F3233M – 21 Standard Specification for Flight and Navigation Instrumentation in Aircraft

9.3.1.3 F3227/F3227M – 21 Standard Specification for Environmental Systems in Aircraft

9.3.1.4 F3309/F3309M – 21 Standard Practice for Simplified Safety Assessment of Systems and Equipment in Small Aircraft

9.3.2 F3408/F3408M – 21 Standard Specification for Aircraft Emergency Parachute Recovery Systems

9.4 *Electrical and Electronic System Lightning Protection:*

9.4.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft

9.4.1.1 F3367 – 21 Standard Practice for Simplified Methods for Addressing High-Intensity Radiated Fields (HIRF) and Indirect Effects of Lightning on Aircraft

9.5 *High Intensity Radiated Fields (HIRF) Protection:*

9.5.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft

9.5.1.1 F3236 – 17 Standard Specification for High Intensity Radiated Field (HIRF) Protection in Small Aircraft

9.5.1.2 F3367 – 21 Standard Practice for Simplified Methods for Addressing High-Intensity Radiated Fields (HIRF) and Indirect Effects of Lightning on Aircraft

9.6 *System Power Generation, Storage, and Distribution:*

9.6.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft

9.6.1.1 F3231/F3231M – 21 Standard Specification for Electrical Systems for Aircraft with Combustion Engine Electrical Power Generation

(a) F2490 – 20 Standard Guide for Aircraft Electrical Load and Power Source Capacity Analysis

9.6.1.2 F3233/F3233M – 21 Standard Specification for Flight and Navigation Instrumentation in Aircraft

9.6.1.3 F3316/F3316M – 19 Standard Specification for Electrical Systems for Aircraft with Electric or Hybrid-Electric Propulsion

(a) F2490 – 20 Standard Guide for Aircraft Electrical Load and Power Source Capacity Analysis

9.6.2 F3117/F3117M – 20 Standard Specification for Crew Interface in Aircraft

9.6.3 F3120/F3120M – 20 Standard Specification for Ice Protection for General Aviation Aircraft

9.7 *External and Cockpit Lighting:*

9.7.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft

9.7.1.1 F3233/F3233M – 21 Standard Specification for Flight and Navigation Instrumentation in Aircraft

9.7.1.2 F3234/F3234M – 17 Standard Specification for Exterior Lighting in Small Aircraft

9.7.2 F3117/F3117M – 20 Standard Specification for Crew Interface in Aircraft

9.7.3 F3120/F3120M – 20 Standard Specification for Ice Protection for General Aviation Aircraft

9.8 *Safety Equipment:*

9.8.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft

9.8.2 F3083/F3083M – 20a Standard Specification for Emergency Conditions, Occupant Safety and Accommodations

9.8.3 F3117/F3117M – 20 Standard Specification for Crew Interface in Aircraft

9.9 *Flight in Icing Conditions:*

9.9.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft

9.9.1.1 F3233/F3233M – 21 Standard Specification for Flight and Navigation Instrumentation in Aircraft

9.9.2 F3120/F3120M – 20 Standard Specification for Ice Protection for General Aviation Aircraft

9.10 *Pressurized System Elements:*

9.10.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft

9.10.2 F3229/F3229M – 17 Standard Practice for Static Pressure System Tests in Small Aircraft

9.11 *Equipment Containing High-Energy Rotors:*

9.11.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft

9.12 *Installation of Cockpit Recorders:*

9.12.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft

9.12.1.1 F3228 – 17 Standard Specification for Flight Data and Voice Recording in Small Aircraft

9.13 *Installation of Flight Data Recorders:*

9.13.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft

9.13.1.1 F3228 – 17 Standard Specification for Flight Data and Voice Recording in Small Aircraft

10. Flight Crew Interface and Other Information

10.1 *Flightcrew Compartment Interface:*

10.1.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft

10.1.1.1 F3232/F3232M – 20 Standard Specification for Flight Controls in Small Aircraft

10.1.2 F3062/F3062M – 20 Standard Specification for Aircraft Powerplant Installation

10.1.3 F3063/F3063M – 20 Standard Specification for Aircraft Fuel Storage and Delivery

10.1.4 F3064/F3064M – 21 Standard Specification for Aircraft Powerplant Control, Operation, and Indication

10.1.5 F3114 – 21 Standard Specification for Structures

10.1.6 F3117/F3117M – 20 Standard Specification for Crew Interface in Aircraft

10.1.7 F3408/F3408M – 21 Standard Specification for Aircraft Emergency Parachute Recovery Systems

10.2 *Installation and Operation Information:*

10.2.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft

10.2.1.1 F3227/F3227M – 21 Standard Specification for Environmental Systems in Aircraft

10.2.1.2 F3231/F3231M – 21 Standard Specification for Electrical Systems for Aircraft with Combustion Engine Electrical Power Generation

10.2.1.3 F3232/F3232M – 20 Standard Specification for Flight Controls in Small Aircraft

10.2.1.4 F3233/F3233M – 21 Standard Specification for Flight and Navigation Instrumentation in Aircraft

10.2.2 F3062/F3062M – 20 Standard Specification for Aircraft Powerplant Installation

10.2.3 F3063/F3063M – 20 Standard Specification for Aircraft Fuel Storage and Delivery

10.2.4 F3064/F3064M – 21 Standard Specification for Aircraft Powerplant Control, Operation, and Indication

10.2.5 F3117/F3117M – 20 Standard Specification for Crew Interface in Aircraft

10.2.6 F3120/F3120M – 20 Standard Specification for Ice Protection for General Aviation Aircraft

10.2.7 F3408/F3408M – 21 Standard Specification for Aircraft Emergency Parachute Recovery Systems

10.3 *Instrument Markings, Control Markings, and Placards:*

10.3.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft

10.3.2 F3063/F3063M – 20 Standard Specification for Aircraft Fuel Storage and Delivery

10.3.3 F3117/F3117M – 20 Standard Specification for Crew Interface in Aircraft

10.3.4 F3120/F3120M – 20 Standard Specification for Ice Protection for General Aviation Aircraft

10.3.5 F3408/F3408M – 21 Standard Specification for Aircraft Emergency Parachute Recovery Systems

10.4 *Flight, Navigation, and Powerplant Instruments:*

10.4.1 F3061/F3061M – 20 Standard Specification for Systems and Equipment in Small Aircraft

10.4.2 F3062/F3062M – 20 Standard Specification for Aircraft Powerplant Installation

10.4.3 F3064/F3064M – 21 Standard Specification for Aircraft Powerplant Control, Operation, and Indication

10.4.3.1 F3432 – 20a Standard Practice for Powerplant Instruments

10.4.4 F3117/F3117M – 20 Standard Specification for Crew Interface in Aircraft

10.5 *Airplane Flight Manual:*

10.5.1 F3117/F3117M – 20 Standard Specification for Crew Interface in Aircraft

10.5.2 F3174/F3174M – 19 Standard Specification for Establishing Operating Limitations and Information for Aeroplanes

10.5.3 F3120/F3120M – 20 Standard Specification for Ice Protection for General Aviation Aircraft

10.5.4 F3408/F3408M – 21 Standard Specification for Aircraft Emergency Parachute Recovery Systems

10.6 *Instructions for Continued Airworthiness:*

10.6.1 F3120/F3120M – 20 Standard Specification for Ice Protection for General Aviation Aircraft

10.6.2 F3117/F3117M – 20 Standard Specification for Crew Interface in Aircraft

10.6.3 F3408/F3408M – 21 Standard Specification for Aircraft Emergency Parachute Recovery Systems