



U.S. Department
of Transportation

**Federal Aviation
Administration**

U.S. Department of Transportation

Federal Aviation Administration

Standard Practice

PREPARATION

OF

STANDARDS

FOREWORD

1. This standard is approved for use by all departments of the Federal Aviation Administration (FAA).
2. This standard covers the format and content requirements for developing FAA standards. This standard supersedes FAA-STD-005E. Replacement of FAA-STD-005E became necessary when the description of how to build Specifications, Standards and Handbooks became too confusing to define within one standard.
3. This revision includes the requirement to provide Internet addresses in order to obtain referenced documents from contact organizations.
4. Standards provide a basis of design or functional requirements, or interface characteristics that must be adhered to in the development of systems, subsystems, equipment, assemblies, items, or parts. They shall be structured to facilitate the tailoring of requirements—either to remove requirements that are not always needed or include requirements that may be needed under certain conditions.
5. The following points are some helpful reminders for consideration when developing a specification, standard, or handbook:
 - a. Consider using an existing commercial standard before developing or revising an FAA standard.
 - b. The standard preparing activity should maintain a carefully documented, permanent record of the source and reason behind particular requirements and changes to requirements. Issues and controversial areas during the coordination process should be noted, and it may be desirable to summarize these issues and areas in the "Notes" section of the document. This record should provide a basis for related application guidance and a history useful in future document revisions.
 - c. State requirements in terms of performance or form, fit, and function, as opposed to providing details on "how to" achieve the desired result or manage a program.
 - d. Avoid unnecessary reference to other documents. If only a small portion of another document is needed, it is better to extract that portion and include it in the specification, standard, or handbook rather than reference the entire document. When referencing another document, try to limit the extent of its application by citing specific requirements or tests. Do not cite paragraph numbers in referenced documents since these are likely to change in future updates.
 - e. Try to make use of commercial products, processes, or practices when setting requirements or tests.

- f. Make a distinction between requirements portions and guidance portions of documents. Careful attention to use of the words "should" (guidance language) and "shall" (requirement language) is important.
- g. Use Section 6 "Notes" to provide users with guidance information that should be considered for inclusion in the contract, how to apply the document to different contract types and different program phases, lessons learned, relationship to other documents, tailoring guidance, and any other information that is not suitable for inclusion as a requirement or test.
- h. Procedures for functions performed only by FAA personnel should be covered by documents such as regulations, directives, instructions, technical manuals, or standard operating procedures.

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1 SCOPE

This standard establishes the format and content requirements for the preparation of FAA standards prepared either by the FAA or by contractors of the FAA.

2 APPLICABLE DOCUMENTS

2.1 General

The documents listed in this section are specified in sections 3, 4, or 5 of this standard. This section does not include documents cited in other sections of this standard or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements of documents cited in sections 3, 4, or 5 of this standard, whether or not they are listed.

2.2 Government documents

The following citations are government documents that are used as references in this standard.

2.2.1 Specifications, standards, and handbooks

The following form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

2.2.1.1 STANDARDS

2.2.1.1.1 Military

MIL-STD-962D Department of Defense, Standard Practice Defense Standards Format and Content. 1 August 2003

2.2.1.2 SPECIFICATIONS

2.2.1.2.1 FAA

FAA-D-2494B Technical Instruction Book Manuscript: Electronic, Electrical and Mechanical Equipment, Requirements for Preparation of Manuscript and Production of Books. 14 March 1984

2.2.1.3 UNITED STATES GOVERNMENT PRINTING OFFICE

United States Government Printing Office (GPO) Style Manual

(Copies of this document are available online from the U.S. Government Printing Office at www.access.gpo.gov.)

2.3 Non-Government publications

The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)

ASME Y14.5M - Dimensioning and Tolerancing
ASME Y14.38 - Abbreviations and Acronyms

(Copies of these documents are available from ASME Information Central at www.asme.org)

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)

IEEE 260.1 - Standard Letter Symbols for Units of Measurement (SI Units, Customary Inch-Pound Units, and Certain Other Units)

(Copies of this document are available online at www.ieee.org.)

IEEE/ASTM INTERNATIONAL

IEEE/ASTM SI 10 - American National Standard for Use of the International System of Units (SI): The Modern Metric System

(IEEE and ASTM International publish this standard jointly. Copies are available from www.ieee.org or www.astm.org.)

2.4 Order of precedence

In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3 DEFINITIONS

Configuration Control Board. A Configuration Control Board is necessary when developing and maintaining a product since changes are inevitable. People make mistakes, customers require changes, and the environment in which the product operates evolves. In addition, people constantly develop their knowledge of the problem and their ability to solve it. In software development, it's generally said that the solution of a problem will create new problems. In other words, we get wiser all the time. The purpose of change control is to be fully in control of all change requests for a product and of all implemented changes. For any configuration item, it must be possible to identify changes in it relative to its predecessor. Any change should be traceable to the item where the change was implemented.

Configuration Management. Configuration management (CM) is a field of management that focuses on establishing and maintaining consistency of a system's or product's performance and its functional and physical attributes with its requirements, design, and operational information throughout its life.

Data. Recorded information, regardless of form or method of recording

FAA Standard. A standard used to satisfy FAA applications. FAA standards typically fall into two categories: interface, and performance.

Interface standard. A standard that specifies the physical operational environment interface characteristics of systems, subsystems, equipment, assemblies, components, items, or parts to permit interchangeability, interconnection, interoperability, compatibility, or communications.

Non-Government standard. A national or international standardization document developed by a private sector association, organization, or technical society that plans, develops, establishes, or coordinates standards, specifications, handbooks, or related documents. The term does not include standards of individual companies.

Performance specification. This denotes a specification that states requirements in terms of the required results with criteria for verifying compliance, but without stating the methods for achieving the required results. A performance specification defines the functional requirements for the item, the environment in which it must operate, and interface and interchangeability characteristics.

Service Organization. The organization that prepares a standard, or has a standard prepared for it.

Specification. A document prepared to support acquisition that describes essential technical requirements for materiel, and the criteria for determining whether those requirements are met.

Standard. A document that establishes uniform engineering or technical criteria, methods, processes, and practices.

Standard practice. It is a standard that specifies procedures on how to conduct certain non-manufacturing functions. Standard practices are developed for functions that, at least some of the time, are obtained via contractor from private sector firms.

Style. A term used to denote differences in design or appearance.

Supplement. A listing of specification sheets associated with a general specification.

Tailoring. A process where individual requirements (sections, paragraphs, or sentences) of selected specifications, standards, and related documents are evaluated to determine which are most suitable for a specific system acquisition or modification. This will ensure that each achieves an optimal balance between operational needs and cost.

Test. It is an element of verification in which scientific principles and procedures are applied to determine the properties or functional capabilities of items.

Test method standard. This standard specifies how to identify, measure, and evaluate the properties and performance characteristics of a particular product or process.

4 GENERAL REQUIREMENTS

This section covers general aspects of style, format, and requirements that are applicable to Standards.

4.1 Common General Requirements

This subsection describes the General Requirements that are common to Standards.

4.1.1 Use of copyright or patent material

Copyright or patent material shall not be included in a standard without the prior consent of the copyright or patent owner. When such consent is obtainable, a line citing the reference source, if requested by the copyright or patent owner, shall be placed in the standard close to the material involved.

4.1.2 Classified material

Classified and sensitive material consists of working documents and shall be designed to avoid unnecessary restrictions in their dissemination. Standards containing classified or sensitive information shall be appropriately marked and handled in accordance with security regulations. The title of standards shall not be labeled classified or sensitive. If only a limited amount of classified or sensitive information is found in a standard, consider including such information in an annex or reference document to keep the main document unclassified or non-sensitive. The Computer Security Act of 1987 defines sensitive information as follows: The term 'sensitive information' means any information, the loss, misuse, or unauthorized access to or modification of which could adversely affect the national interest or the conduct of Federal programs, or the privacy to which individuals are entitled under section 552a of title 5, United States Code (the Privacy Act), but which has not been specifically authorized under criteria established by an Executive order or an Act of Congress to be kept secret in the interest of national defense or foreign policy. Classified information is defined by the Department of Defense (DoD) in DoD Regulation 5200.1-R. Under this regulation information may be classified as "Top Secret", "Secret", or "Confidential". These terms are further defined as follows: Top Secret shall be applied to information the unauthorized disclosure of which reasonably could be expected to cause exceptionally grave damage to the national security that the original classification authority is able to identify or describe. Secret shall be applied to information the unauthorized disclosure of which reasonably could be expected to cause serious damage to the national security that the original classification authority is able to identify or describe. Confidential shall be applied to information the unauthorized disclosure of which reasonably could be expected to cause damage to the national security that the original classification authority is able to identify or describe.

4.1.3 Text

The text shall be written in clear and simple language, free of vague terms, or those subject to misinterpretation. All sentences shall be complete and in accordance with the rules of grammar.

4.1.3.1 Grammar and style

The United States Government Printing Office Style Manual shall be used as a guide for capitalization, spelling, punctuation, syllabification, compounding words, tabular work, and other elements of grammar and style.

4.1.3.2 Abbreviations

Abbreviations shall be in accordance with ASME Y14.38. Abbreviations not covered by ASME Y14.38 shall be in accordance with the GPO Style Manual. The first time an abbreviation is used in text, it shall be placed in parentheses and shall be preceded by the word or term spelled out in full (for example, circuit (ckt) and frequency converter (freq conv)). The rule does not apply to abbreviations used for the first time in tables and equations. Abbreviations used on figures and in tables, but not referenced in the text or in any other portion of the standard, shall be spelled out in a footnote to the applicable figure or table.

4.1.3.3 Acronyms

The first time an acronym is used in text, it shall be placed in parentheses and shall be preceded by the word or term spelled out in full (for example, International Civil Aviation Organization (ICAO)). The rule does not apply to acronyms used for the first time in tables and equations. Acronyms used on figures and in tables, but not referenced in the text or in any other portion of the standard, shall be spelled out in a footnote to the applicable figure or table. A complete list of acronyms may also be included in section 6 of the standard.

4.1.3.4 Symbols

Symbols shall be in accordance with IEEE 260.1. Symbols not covered by IEEE 260.1 shall be in accordance with the GPO Style Manual.

4.1.3.5 Commonly used words and phrases

The following rules shall apply for these commonly used words and phrases:

- a. Referenced documents shall be cited in the following manner:
 - (1) “conforming to ...”
 - (2) “as specified in ...”
 - (3) “in accordance with ...”

In any case, use the same wording throughout a given document and a series of directly related documents.

- b. “Unless otherwise specified” shall be used to indicate an alternative course of action. The phrase shall always come at the beginning of the sentence, and, if possible, at the beginning of the paragraph. This phrase shall be used only when it is possible to clarify its meaning by providing a reference, such as to section 6 of the standard, for further clarification in the contract or reference to another paragraph in the standard.
- c. The phrase “as specified herein” may be used when making reference to a requirement in a standard that is rather obvious or not difficult to locate.
- d. The phrase “to determine compliance with” or “to determine conformance to” should be used in place of “to determine compliance to.” In any case, use the same wording throughout.
- e. The words “drawing” and “bulletin” shall be capitalized only when they are used immediately preceding the document identifier. However, specifications, standards,

and handbooks shall be identified in the text only by their document identifier; thus, FAA-STD-XXX (not: “standard FAA-STD-XXX”).

- f. The following prepositional phrases shall be used when referencing figure and table information: “on a figure” or “in a table”.
- g. The emphatic form of the verb “shall” is to be used throughout sections 3, 4, and 5 of this standard whenever a requirement is intended to express a provision that is binding. “Shall” is not to be used in Sections 1, 2, or 6 of the standard.
- h. “Will” may be used to express a declaration of purpose on the part of the Government. It may be necessary to use “will” in cases when simple futurity is required.
- i. Use “should” and “may” to express non-mandatory provisions.
- j. “Must” shall not be used to express a mandatory provision; use the term “shall.”
- k. Indefinite terms, such as “and/or,” “suitable,” “adequate,” “first rate,” “best possible,” “and others,” and “the like” shall not be used. Use of “e.g.,” “etc.,” and “i.e.,” should be avoided.

4.1.4 Measurements

Decimals shall be used in documents instead of fractions wherever possible. Measurements such as length, time, or weight shall be stated as a limit or with a tolerance.

4.1.5 Dual dimensions

When preference is given to English units, acceptable metric units may be shown in parentheses. When preference is given to metric units, English units may be omitted or included in parentheses. The mixed use of both metric and English as primary measurements should be avoided.

4.1.6 Paragraph numbering

Each paragraph and subparagraph shall be numbered consecutively within each section of the standard, using a period to separate the number representing each breakdown. Lowercase letters followed by a period shall be used to identify listings within a paragraph or subparagraph. Bullets shall not be used. For clarity of text, paragraph numbering should be limited to three sublevels, unless additional sublevels are unavoidable. Paragraphs in this standard are an example of how to number paragraphs.

4.1.7 Paragraph identification

Each paragraph and subparagraph shall be given subject identification. The first letter of the first word in the paragraph and subparagraph identification shall be capitalized. Paragraph and subparagraph identifications shall be underlined, italicized, or bold type.

4.1.8 Page number

The cover page shall not be numbered. Pages between the cover and the first section shall be numbered consecutively in the bottom center of each page with lower-case Roman numerals, omitting number i (for example, ii, iii, and iv). The first page of the first section shall be numbered with an Arabic numeral 1. All following pages, including appendixes and the index, shall be numbered consecutively in the bottom center of the page with sequential Arabic numerals.

4.1.9 Tables

A table shall be used when information can be presented more clearly than in text. The tables shall be placed immediately following or within the paragraph containing the first reference. If space does not permit, the table may be placed on the following page. If tables are numerous or their location would interfere with correct sequencing of paragraphs and cause difficulty in understanding or interpretation, they may be placed in numerical order at the end of the standard and before any figures, appendix, or index. Information included in tables shall not be repeated in the text.

4.1.9.1 Table numbering

All tables shall be numbered consecutively throughout the document with Roman numerals in the order of their reference in the text. The word "TABLE" shall be in full capitalization, followed by the Roman numeral and a period, centered above the table.

4.1.9.2 Table title

All tables shall have a title. The title shall be underlined, italicized, or boldfaced. Only the first letter of the title shall be capitalized. Table titles shall be centered above the table on the same line with the table number. If the title is too long to fit on one line, the second line shall be aligned with the first letter of the title. If a listing or tabulation appears within a paragraph as an integral part of that paragraph, and obviously does not require a title, the listing or tabulation need not be titled.

4.1.9.3 Table format

Tables shall be boxed in and ruled horizontally and vertically as necessary to ensure clarity of the table contents. If a table is of such width that it would be impractical to place it in a vertical position, it may be rotated counterclockwise 90 degrees. Large tables may be divided and, if possible, printed on facing pages.

4.1.9.4 Continuation of tables

If a table is continued to additional page(s), a horizontal line shall not be drawn at the end of the page, unless the table is a group or method type that requires a line of separation between the groups. When the table is continued to the next page, the title shall be repeated and a dash followed by the word "Continued" at the end of the title; for example, "TABLE II. Qualification inspection - Continued." The column headings shall be repeated at the top of the page on which the continuation is presented. The table shall be closed with a horizontal line when all information has been entered.

4.1.10 Figures

Dimensioning practices for outline drawings shall comply with ASME Y14.5M. Figures should be placed immediately following or within the paragraph containing the first reference to the figure. If figures are numerous or their location would interfere with correct sequencing of paragraphs and cause difficulty in understanding or interpretation, they may be placed in numerical order at the end of the standard following any tables and before any appendix or index. If the figure is of such width that it would be impractical to place it in a vertical position, it may be rotated counterclockwise 90 degrees.

4.1.10.1 Figure numbering

All figures shall be numbered consecutively throughout the document with Arabic numerals in the order of their reference in the text. The word “FIGURE” shall be in full capitalization, followed by the Arabic numeral and a period, centered below the figure.

4.1.10.2 Figure title

All figures shall have a title. The title shall be underlined, italicized, or boldfaced. Only the first letter of the title shall be capitalized. Figure titles shall be centered below the figure on the same line with the figure number. If the title is too long to fit on one line, the second line shall be aligned with the first letter of the title.

4.1.10.3 Continuation of figures

Large figures may be broken, and, if possible, printed on facing pages. When a figure is continued on the next page, the number and title shall be repeated below the figure with a dash followed by the word “Continued” at the end of the title.

4.1.11 Footnotes and notes

Footnotes and notes may be used as indicated below.

4.1.11.1 Footnotes to text

Footnotes may be used to convey additional information that is not properly a part of the text. A footnote to the text shall be placed at the bottom of the page containing the reference to it. Footnotes shall be consecutively numbered throughout the standard with Arabic numerals.

4.1.11.2 Footnotes to tables

Footnotes shall be numbered separately for each table as they appear in the table. Footnote numbers or symbols shall be placed immediately following a word and preceding a numeric value requiring the footnote. Numbered footnotes shall be listed in order immediately below the table. When numbered footnotes may lead to ambiguity (for example, in connection with a chemical formula), superscript letters, daggers, and other symbols may be used.

4.1.11.3 Notes to figures

Notes to figures are numbered separately from textual footnotes within the document. Drafting or dimensional notes shall be numbered consecutively and placed below the figure and above the title. The word “NOTES:” shall be placed below the figure at the left margin of the figure followed by the explanatory information in Arabic numeral sequence under “NOTES”. For example:

“NOTES:

1. Dimensions are in inches.
2. English unit equivalents are given for information only.”

4.1.12 Foldouts

Foldouts should be avoided since their use will require special printing and handling procedures. Whenever possible, lengthy tables should be reformatted as multiple, single-page tables. When foldouts are required, they shall be grouped in one place, preferably at the end of the document

(in the same location as figures) and suitable reference to their location shall be included in the text.

4.1.13 Definitions

Definitions shall be listed in alphabetical order in section 3. A parenthetical phrase referring to the applicable paragraph in section 6 shall follow the terms to indicate the existence of a definition, for example, “(see 6)”. When a standard definition exists, the definition should be quoted word for word and the source cited.

4.1.14 Cross-reference

Cross-reference shall be used only to clarify the relationship of requirements within the standard and to avoid inconsistencies and unnecessary repetition. When the cross-reference is to a paragraph or subparagraph within the standard, the cross-reference shall be only to the specific paragraph number. The word “paragraph” shall not appear; for example, “(see 3.1.1)”.

4.1.15 References to other documents

Judicious referencing of other documents in standards is a valuable tool that eliminates the repetition of requirements and tests adequately set forth elsewhere. However, unnecessary or untailed referencing of other documents can lead to increased costs, excessive stratification, ambiguities, and compliance with unneeded requirements. The following rules shall apply when referencing another document as a requirement in a standard and listing it in Section 2 as an applicable document:

1. If the information is less than a page and if it is not a violation of copyright provisions, it should be included directly into the standard without referencing another document.
2. Referenced documents shall be current (not canceled or superseded), approved for use (not drafts), and readily available.
3. Unless the entire referenced document applies, it shall not be cited in total, but shall be tailored by citing the appropriate sections of the document, such as specific types, grades, or classes; test methods; or definitive descriptions (for example, “the painting requirements of FAA-STD-XXX”). Do not reference specific paragraph, table, or figure numbers from another document since these may change when the document is revised.
4. References to policy-type documents, such as directives, instructions, and regulations shall be avoided. Many Government regulatory agencies, such as the Environmental Protection Agency or the Occupational Safety and Health Administration, issue directives and regulations that serve as technical standards. It is acceptable to reference these types of directives and regulations.
5. Documents that define management and manufacturing practices and processes shall not be cited in standards, and should be avoided in all standards.
6. Specifications, standards, drawings, or other documents that contain proprietary or unique design solutions that would restrict competition or not be readily available shall not be referenced.

4.1.16 Approved document format

The approved and dated document shall have one-inch margins. Hyperlinks may be inserted into the document to facilitate electronic viewing of the document. Hyperlinks are encouraged for a table of contents and index.

4.2 General Requirements for Standards

This chapter describes the general requirements that are unique to Standards.

4.2.1 Coverage

A standard shall be prepared to describe essential technical requirements for engineering or technical criteria, methods, processes, or practices. To the greatest extent possible, standards shall be written so that commercial practices and processes may be used to meet the requirement, and requirements should be stated in terms of desired outcomes as opposed to detailed procedures.

4.2.1.1 Tailoring of requirements

Standards shall be written and structured so that referenced documents, requirements, and verification provisions can be readily tailored to suit different applications.

4.2.2 Data requirements

Standards shall not contain requirements for the development, preparation, acquisition of rights, submission, delivery, maintenance, updating, approval, or distribution of plans, reports, drawings, manuals, or other data products. A standard may be the source document for a Statement of Work (SOW). The SOW will cite specific tasks in the standard, which when performed, will result in the need for data. Only a contract may specify data requirements.

5 DETAILED REQUIREMENTS

This section describes the detailed requirements for preparing Standards within the scope of this Standard.

5.1 Standards

The detailed format and content requirements required for the preparation of standards and their notices are given in this section.

5.1.1 Types of standards

The various types of FAA standards include interface standards, test method standards, and standard practices. Appendix A provides an example of parts of standards to aid in new standard development.

5.1.1.1 Interface standards

Interface standards shall specify the physical, functional, or operational environment interface characteristics of systems, subsystems, equipment, assemblies, components, items, or parts to permit interchangeability, interconnection, interoperability, compatibility, or communications.

5.1.1.2 Test method standards

Test method standards shall specify the procedures or criteria for measuring, identifying, or evaluating qualities, characteristics, performance, and properties of a product or process.

5.1.1.3 Standard practices

Standard practices shall specify procedures on how to conduct non-manufacturing functions that, at least some of the time, are obtained via contract from private sector firms.

5.1.2 Organization of standards

Standards shall be organized as shown below. Every element and section, unless it is followed by the words “if applicable,” shall be included in a standard. If there is no information pertinent to any of the six sections, the following shall appear below the section heading: “This section is not applicable to this standard.”

- a. Self-cover (see [5.1.3](#)).
- b. Foreword (see [5.1.4](#)).
- c. Contents page (see [5.1.5](#)).
- d. Section 1: Scope (see [5.1.6](#))
- e. Section 2: Applicable documents (see [5.1.7](#))
- f. Section 3: Definitions (see [5.1.8](#))
- g. Section 4: General requirements (see [5.1.9](#))
- h. Section 5: Detailed requirements (see [5.1.10](#))
- i. Section 6: Notes (see [5.1.11](#))
- j. Individual numbered tasks, requirements, and test methods (see 5.1.10.1)

- k. Appendixes, if applicable (see [5.1.13](#))
- l. An index, if applicable (see [5.1.14](#))
- m. Concluding material (see [5.1.12](#))

5.1.3 Self-cover

All standards shall have a self-cover. The title, document identifier, date of issue, and the FAA seal shall appear on the self-cover (see the self-cover of this standard for an example). In addition, drafts of proposed standards shall carry one of the following notes at the top of the self-cover, as applicable:

"NOTE: This draft, dated (date) prepared by (preparing activity), has not been approved and is subject to modification. DO NOT USE PRIOR TO APPROVAL. (Project)"

"NOTE: This draft, dated (date) prepared by (name of agent), as agent for (preparing activity), has not been approved and is subject to modification. DO NOT USE PRIOR TO APPROVAL. (Project)"

This note shall be removed from the approved document prior to publication.

5.1.3.1 Heading

Standards shall have one of the following headings on the self-cover, as applicable:

FEDERAL AVIATION ADMINISTRATION
INTERFACE STANDARD

FEDERAL AVIATION ADMINISTRATION
TEST METHOD STANDARD

FEDERAL AVIATION ADMINISTRATION
STANDARD PRACTICE

5.1.3.2 Titling

Under the heading, there shall be a short title that indicates the scope of the document. The title should be constructed as if it were the title to a book, rather than having an inverted title with the main noun name first.

5.1.3.3 Identification of standards

Standards shall be identified by the letters "FAA-STD", followed by a hyphen and an Arabic numeral (e.g., "FAA-STD-123") as assigned by ATO-W Enterprise CM.

5.1.3.4 Date of document

The date of approval by the CCB shall appear under the document identifier on the self-cover page only. Drafts shall not have a date in this location. The space shall include the word "DRAFT" until the document is approved.

5.1.3.5 Superseding document indicator

When applicable, a superseding document indicator shall appear in the upper right corner of the self-cover, below the standard identifier and date, to identify those documents that have been replaced by the issuance. A line shall separate the standard identifier and date of the superseding document from the superseding data. The word "SUPERSEDING" shall be entered below the separation line, followed by the number and date of the superseded document(s).

5.1.3.5.1 Superseding revisions

When a standard is revised, the superseding information shall indicate that the revision supersedes the prior issuance of the standard. Only revisions shall be listed. Notices, which are included in the superseding revision, shall not be listed.

a. Example of revision superseding another revision

FAA-STD-123B
11 August 2002
 SUPERSEDING
 FAA-STD-123A
 5 May 1996

5.1.3.5.2 Superseding other documents

A standard may supersede other documents totally or in part. When this happens, an explanatory note shall be included in section 6 of the standard to clarify cross-referencing information (see [4.1.14](#)) and provide any other information that contributes to understanding how to apply the superseding document.

a. Example of document superseding a different document

FAA-STD-567
11 August 2002
 SUPERSEDING
 DRAWING 123456C
 5 May 1996
 (See 6._)

b. Example of document superseding two documents

FAA-STD-890B
11 August 2002
 SUPERSEDING
 FAA-STD-890A
 6 June 1996
 FAA-C-1234
 18 July 1987
 (See 6._)

c. Example of document superseding a document in part

FAA-STD-567
11 August 2002
 SUPERSEDING
 FAA-A-123D (IN PART)
 5 May 1986

When a document supersedes a document of a different number, the cancellation notice for the superseded document should be processed for issuance simultaneously with the superseding document. The approval dates of the superseding document and of the cancellation notice should be the same.

5.1.3.6 Standard numbering

FAA standards are assigned traceability numbers by Enterprise Configuration Management organization following endorsement by the Systems Engineering organization. This alphanumeric designator will utilize the following format: FAA-STD-XXX, where "XXX" equals a four digit number. The standard number is placed in the uppermost right corner of the cover page. Standard numbers will not be issued until the draft standard has been endorsed by Systems Engineering organization. Standard numbers are issued to the author organization following origination of the case file that will baseline the draft (endorsed) standard at the respective CCB.

5.1.4 Foreword

A foreword shall be included in all standards. The foreword shall include a preamble and a point of contact paragraph. Additional numbered statements may be included to explain the purpose of the document, background information, or reasons for changes, if it is a revision to a document. The foreword shall begin on the backside of the self-cover and shall be numbered with Roman numeral ii. See the foreword of this standard for an example.

5.1.4.1 Preamble

The following preamble shall appear as the first paragraph of the foreword:

"This standard is approved for use by all Departments of the Federal Aviation Administration (FAA)."

5.1.4.2 Contact information

The last paragraph of the foreword shall include contact information in case users have comments or questions. The information shall include a mailing address and an email address, as follows:

Comments, suggestions, or questions on this document should be addressed to:

Federal Aviation Administration
 ATO-P/SE
 800 Independence Avenue, SW.
 Washington, DC 20591

Otherwise help can be found through:

http://www.faa.gov/air_traffic/nas/system_standards/

5.1.5 Table of Contents page

The table of contents page shall be follow the foreword. The single phrase "TABLE OF CONTENTS" in capital letters shall head the table of contents page. The table of contents page shall include section, paragraph, figure, table, and appendix numbers or letters and titles, as appropriate; and an index, if used, and the page numbers to locate them. See the table of contents page of this standard for an example.

5.1.6 Section 1 - Scope

Section 1 shall include a scope that briefly states the coverage of the standard. Section 1 may also include paragraphs on the standard's purpose, applicability, and classifications of items, materials, methods, practices, or processes. This section shall not contain requirements.

5.1.6.1 Classification

Classifications shall be listed under this heading in section 1 and shall be in accordance with accepted industry practice. The same designation shall be used throughout the standard. When more than one type or other classification is listed, each shall be briefly defined. The classification should remain constant from revision to revision of the standard. When the characteristics of an item change enough to affect interchangeability, the original designation shall be deleted and a new classification added. If it becomes necessary to change the designation without changing the characteristics of the item, a cross-reference shall be included in the "NOTES" section indicating the relationship between the old and new designations. This cross-reference shall remain in "NOTES" section in all successive revisions identifying designations in all revisions since the original designation change. Such changes shall be kept to a minimum.

5.1.7 Section 2 – Applicable Documents

Section 2 shall list only those documents referenced in sections 3, 4, or 5 of the standard that are needed to meet requirements or provide useful information for meeting requirements. If a document is only cited as an example or for background information, it does not have to be listed in section 2. For the types of documents that may be referenced in standards, see [4.1.15](#). The first paragraph in section 2 shall be as follows:

"2.1 General. The documents listed in this section are specified in sections 3, 4, or 5 of this standard. This section does not include documents cited in other sections of this standard or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements of documents cited in sections 3, 4, or 5 of this standard, whether or not they are listed."

5.1.7.1 Government documents

The second paragraph in section 2 shall be titled as:

"2.2 Government documents."

This paragraph shall identify all types of Government documents required in sections 3, 4, or 5, if applicable. The first subparagraph under this heading shall identify Government specifications, standards, and handbooks, if applicable. The second subparagraph under this heading shall identify other types of Government documents, drawings, and publications, if applicable.

5.1.7.1.1 Government specifications, standards, and handbooks

Government specifications, standards, and handbooks shall be listed by document identifier and title. Documents shall exclude the revision letters, suffix (preparing activity symbols), and the "00" designation for interim standards. Titles shall be taken from the documents rather than an index. Government specifications, standards, and

handbooks shall be listed numerically (except federal specifications, which shall be listed alphanumerically) under the following headings in the order shown, as appropriate:

- FEDERAL SPECIFICATIONS
- FEDERAL STANDARDS
- FEDERAL HANDBOOKS

Standards shall include the following paragraph as 2.2.1 if specifications, standards, and handbooks are to be listed as applicable documents:

“2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.”

5.1.7.1.2 Other Government documents, drawings, and publications

The following types of documents shall be listed after the paragraph of 2.2.1 above, in appropriate order (numerically or alphanumerically), under the headings of the issuing Government agency. The document(s) shall be listed by identifier and title, if applicable. Titles shall be taken from the document rather than from an index.

- a. Other types of publications, which might include technical manuals, design guides, cataloging handbooks, or reports.
- b. Drawings. When detailed drawings referred to in a standard are listed in an assembly drawing, it is only necessary to list the assembly drawing. Figures bound integrally with the standard are not considered drawings and shall not be listed in section 2, unless they are reduced-size copies of drawings provided in the standard for information only and use of the full-size drawings is normally required with the standard.
- c. Government documents issued by DoD and other agencies, such as the Environmental Protection Agency, National Aeronautics and Space Administration, and the Occupational Safety and Health Administration.

Standards shall include the following paragraph as 2.2.2 if Government documents, drawings, and publications not listed under 2.2.1 are to be listed as applicable documents:

"2.2.2 Other Government documents, drawings, and publications. The following other Government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract."

A parenthetical source statement shall follow each individual document or each group of related documents providing the name and address of the source. If possible, an Internet source for viewing or obtaining the documents shall be provided.

5.1.7.2 Non-Government standards and other publications

Non-Government standards and other publications not normally furnished by the Government shall be listed in appropriate order (numerically or alphanumerically) under the headings of the respective non-Government standards organization. The document(s) shall be listed by identifier and title, if applicable. Titles shall be taken from the document rather than from an index. Standards shall include the following paragraph as 2.3 if non-Government standards are to be listed as applicable documents:

“2.3 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.”

A parenthetical source statement shall follow each respective issuing non-Government standards organization listing of documents, providing the name and address of the source. If possible, an Internet source for viewing or obtaining the documents shall be provided.

5.1.7.3 Order of precedence

In order to avoid confusion in the possible conflict between the requirements of the standard and the documents referenced therein, the following statement shall be included:

"2.4 Order of precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained."

5.1.8 Section 3 – Definitions

Definitions of all key terms used in the standard shall be stated in sufficient detail to provide for adequate clarity, unless the terminology is generally accepted and not subject to misinterpretation. Definitions may be included by reference to another document. When a standard definition exists, a different definition shall not be used. Definitions shall be listed in alphabetical order. A list of acronyms and abbreviations may also be included under definitions.

5.1.9 Section 4 – General Requirements

Requirements included in this section shall apply across the interfaces, practices, processes, test methods, or other criteria addressed by the standard.

5.1.10 Section 5 – Detailed Requirements

Requirements included in this section shall apply to specific interfaces, practices, processes, test methods, or other criteria addressed by the standard. If section 1 of the standard identifies different types or other classifications, section 5 should be used to describe the differences in requirements. In general, section 5 should be written in a sectionalized format in order to tailor requirements to a particular application.

5.1.10.1 Individual tasks, requirements, or test methods

When there are many individual tasks, requirements, or test methods in a standard, they may be presented as individual or common groups of requirements under a task, requirement, or test method. In such instances, section 5 would usually serve as a pointer to the individual tasks, requirements, or test methods. Any numbering system may be used, but shall provide for consecutive numbering upon revising the task, requirement, or test method. For example:

- a. If a requirement is numbered 204 for the first issue, the first revision could be 204A, the second revision 204B, and so forth.
- b. If a requirement is numbered 1100 for the first issue, the first revision could be 1100.1, the second revision 1100.2, and so forth.
- c. Pages, tables, and figures may be numbered consecutively within each individual task/requirement/test method.

5.1.11 Section 6 – Notes

Section 6 is not contractually binding. No requirements shall be included. It shall only contain information of a general or explanatory nature. Such information shall assist in determining the applicability of the standard, additional superseding data, changes in classification, and other information deemed appropriate.

5.1.11.1 Parenthetical note

The following parenthetical note shall appear immediately below "6. NOTES":

"(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)"

5.1.11.2 Intended use

Information relative to the use of the subject matter covered by the standard shall be included under this heading as 6.1. If there are any particular applications for which the document is not well adapted, this information shall also be included.

5.1.12 Concluding Material

The concluding material shall be provided at the end of the document following any tables, figures, appendixes, or indexes. The concluding material shall indicate the preparing activity or the Office of Primary Interest (OPI), review activities and industry associations.

5.1.12.1 Preparing activity

Standards shall identify the preparing activity using the appropriate organizational symbol.

5.1.12.2 Review activities

The preparing activity shall list potential review activities during document development. The preparing activity shall confirm review interest with these activities during coordination. The symbols used to identify review activities shall be in accordance FAA organizational requirements.

5.1.12.3 Industry associations

The preparing activity may list interested industry associations (including Non-Government Standards Bodies) for use in the coordination of standards.

5.1.13 Appendix

Appendixes may be added to a standard for purposes of illustration, application, or to group similar requirements together for clearer presentation. When required, an appendix shall be included as an integral part of a standard, beginning on the next page following section 6; individual tasks, requirements, or test methods; or tables or figures, and before an index or concluding material. Appendixes shall be referenced in the applicable part of the main body of the standard. Table of contents and cover shall not be used.

5.1.13.1 Identification

The upper center of each page shall be marked with the standard identifier and the word "APPENDIX" followed by the appendix letter (for example, APPENDIX A) directly below the identifier. If more than one appendix is needed, identification shall be alphabetical (A, B, etc.).

5.1.13.2 Title

The appendix title shall be located two lines below the word "APPENDIX" on the beginning page only.

5.1.13.3 Section and paragraph numbering

The sections in the appendix shall be designated by a letter corresponding to the appendix letter, followed by a period and an Arabic numeral. For example, the first section in Appendix A would be "A.1" and the second section in Appendix B would be "B.2."

Paragraphs and subparagraphs shall be numbered consecutively within each section of the appendix. For example:

Requirements section of Appendix D.....	D.3
First paragraph.....	D.3.1
First subparagraph.....	D.3.1.1
Second paragraph.....	D.3.2

5.1.13.4 Table numbering

All tables shall be numbered consecutively throughout an appendix. The word "TABLE" shall be in full capitalization, followed by the applicable appendix letter, the Roman numeral and a period, centered above the table. For example, the second table in Appendix B would be numbered "TABLE B-II."

5.1.13.5 Figure numbering

All figures shall be numbered consecutively throughout an appendix. The word "FIGURE" shall be in full capitalization, followed by the applicable appendix letter, the Arabic numeral and a period, centered below the figure. For example, the fourth figure in Appendix C would be numbered "FIGURE C-4."

5.1.13.6 Page numbering

Page numbers shall be numbered consecutively following the last page of the standard.

5.1.13.7 Scope

An appendix shall have a statement of scope as its first paragraph to indicate the coverage and limitations of the appendix to ensure its proper application and use. The following shall be included: "This Appendix (is or is not) a mandatory part of the standard. The information contained herein is intended for (compliance or guidance only)."

5.1.13.8 References

References that are required and relate only to the appendix shall be listed in the appendix under the section heading "APPLICABLE DOCUMENTS" and shall not be

referenced in section 2 of the standard. The references shall be listed as specified in [5.1.7](#). This section shall be omitted from the appendix if not applicable.

5.1.13.9 Definitions

Definitions that relate only to the appendix shall be listed in the appendix under the section heading “DEFINITIONS.” Definitions already appearing in section 3 of the standard shall not be repeated. This section shall be omitted from the appendix if not applicable.

5.1.14 Index

An alphabetical index may be placed at the end of a standard to permit ready reference to contents. Its use shall be limited to lengthy documents. If used, an index follows the basic document and any appendix. The pages are numbered continuously following the last page of the basic document or appendix, as applicable. The document identifier shall appear in the upper center of each page.

5.1.15 Revisions

Revisions shall follow the content and format instructions prescribed for new standards. Revisions shall be indicated by a capital letter immediately following the document identifier. The first revision shall be marked with the letter “A” and succeeding revisions shall be indicated by letters in alphabetical sequence, except the letters “I”, “O”, “Q”, “S”, and “Z” shall not be used. For example, when FAA-STD-123B is revised, it becomes FAA-STD-123C.

5.1.15.1 Insertion of paragraphs, figures, and tables

When new paragraphs, figures, or tables are added to the standard, they should be numbered in such a way that renumbering of existing paragraphs, figures, and tables is not necessary.

5.1.15.2 Page numbering

Since changes are an integrated part of the basic or revised document, pages shall be numbered in a natural sequence of whole Arabic numerals as described in [4.1.8](#). As pages are added or eliminated as the result of changes, there should not be any inventive numbering schemes to account for these pages. For example, if a change results in a new page between existing pages 8 and 9, do not number the new page as 8a or 8.1. Instead, let word processing automatically renumber the pages.

6 NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended use

Standards covered by this standard are intended for use in acquisition to obtain FAA-unique items. Non-Government standards or commercial item descriptions should be used to describe the requirements for commercially available item.

6.2 Tailoring guidance

To ensure proper application of this standard, invitation for bids, requests for proposals, and contractual statements of work should tailor the requirements in sections 4 and 5 of this standard to exclude any unnecessary requirements. For example, if the statement of work requires a revision to a standard, then all the paragraphs in this standard related to amendments, notices, supplements, and specification sheets should be excluded.

APPENDIX A. ACRONYM LIST

ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
ATO-P/SE	Air Traffic Organization-P/System Engineering
ATO-W	Air Traffic Organization-W
CCB	Configuration Control Board
ckt	circuit
CM	Configuration Management
DoD	Department of Defense
DOORS	Data Object Oriented Requirements
FAA	Federal Aviation Administration
freq conv	frequency converter
GPO	Government Printing Office
ICAO	International Civil Aviation Organization
IEEE	Institute of Electrical and Electronics Engineers
MIL	Military
NAS	National Airspace System
OPI	Office of Primary Interest
SOW	Statement of Work
STD	Standard

APPENDIX B. FAA STANDARDS TEMPLATE

This Appendix is not a mandatory part of the standard. The information contained herein is intended for guidance only. The following template is offered to show what is expected in terms of format and content. When combined with the preceding information (sections 1-6) the user should have considerable guidance in generating their own standard. FAA-STD-042B is an example of a standard which by and large follows this template.

B.1 Example Template of FAA Standards Sections

Foreword. This should contain a preamble about the intended group for guidance. This should contain statements of approval authority. This should contain a statement as to purpose of the Standard. This should contain a statement related to where comments or questions on the Standard should be addressed.

Table of Contents

1. Scope

This section has no content, only title.

1.1 Scope. This section should contain statements of intended content, purpose, and applicability. This section can define the boundary of a project which can include performance, design, and verification requirements.

1.2 Change Record - Indicates any modifications made to the document.

1.3 Overview/Definitions –Defines the product to be delivered and operational setting within the NAS.

2. Applicable Documents. Includes documents used for reference within the body of the standard. Should contain only lists of Government documents and Non-Government documents used in the Standard and order of precedence. Included herein should be referenced specifications, standards, and handbooks as well as documents from special authorities, i.e. IEEE or ASME.

2.1 FAA Documents. Title only followed by a listing.

2.2 Non-FAA Government Documents. This may include Military documents.

2.3 Non-Government Documents. This may include documents like industry standards.

3. Definitions. Title only followed by a listing. All key and/or unique terms used in the Standard should be listed and defined in this section.

4. General Requirements. Title only.

4.1 General requirements.

With respect to the FAA this section should contain information related to the subject process or practice or methodology or characteristics being defined and as such may cover (separate subsections for each):

- purpose,
- objectives,
- portability,
- organization,
- management,
- responsibility,
- resources,
- tools,
- controls,
- reports,
- general history,
- other applicable standards,
- general process description,
- configuration management,
- quality assurance,
- deviations and waivers.

4.2 Document organization. This section should layout the content for the rest of the Standard.

5. Detailed Requirements. Title only.

5.1 Detailed requirements. This section should contain specific information related to the process or practice or methodology or characteristics that is the subject of this standard including (separate subsections for each):

- the history and/or derivation of the process,
- comparison of changes i.e. the traditional processes versus the new,
- criticality of the process,
- any related materials and processes having to do with this process i.e. maintenance processes and performance measurement processes,
- related acquisition information,
- step by step procedures or individual tasks and requirements or test methods for the process or practice or methodology
- physical, functional, or operational environment interface characteristics
- criteria for measuring, identifying, or evaluating qualities, characteristics, performance and properties of a product or process

6. Notes. This section is available for special definitions, tables, definitions of existing hardware, special considerations or a glossary.

6.1 Intended use.

This section shall include a statement as the intention for use within the FAA.

6.2 Tailoring guidance.

This section shall include statements that ensure proper application of this standard.

Appendices

This section may include anything that offers back up data, examples, special figures, tables of numerical data to support the recommendations. A list of acronyms is usually found here.