ORDER

1320.46C

ADVISORY CIRCULAR SYSTEM

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DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

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FOREWORD

The Advisory Circular (AC) system became effective in 1962. It provides a single, uniform, agency-wide system that the Federal Aviation Administration (FAA) uses to deliver advisory material to FAA customers, industry, the aviation community, and the public. This order sets forth procedures for preparing, processing and delivering ACs. It lists the significant responsibilities of FAA offices and establishes standards for format, writing, and clearance procedures. It cancels Order 1320.46B, issued September 25, 2000. The Office of Cost and Performance Management will help you with questions about how to process ACs. You can reach the office at 202-267-7140.

May 31, 2002

Timothy Lawler, Director
Office of Cost and Performance Management

NOTE: This document is also available on the internet at the following address:

http://www.faa.gov/RegulatoryAdvisory/ac_index.htm

TABLE OF CONTENTS

Foreword i

Chapter 1. General Information About Preparing and Issuing Advisory Circulars 1

1. The purpose of this order. 1
2. Who this order affects. 1
3. What the AC System is. 1
4. How this order differs from the previous order on ACs. 1

Chapter 2. Responsibilities of FAA Offices 3

1. The Office of Cost and Performance Management. 3
2. The Office or Service Director issuing an AC 3
3. The Manager of the office issuing an AC. 3
4. Directives Management Staff in offices that originate ACs. 4
5. Authors of ACs. 4
6. Reviewing offices. 4
7. Office of the Chief Counsel. 4

Chapter 3. Creating an Advisory Circular 6

1. When to write an AC. 6
2. When to change or revise an AC. 5
3. How to cancel an AC. 5
4. General requirements for AC. 5
5. The AC Numbering System. 6
6. Structuring Acs. 6
7. Essential writing principles. 8
8. Using appendices. 8
9. Presenting regulatory material in an AC. 9
10. Using references in the text of an AC. 9
11. Formatting an AC. 10
12. Using copyrighted material and giving credit to others. 10
13. Making an AC accessible. 11

Chapter 4. Processing and Distributing an Advisory Circular 12

1. Preparing draft ACs. 12
2. Developing a coordination list. 12
3. Distributing draft ACs for comment. 12

4. Considering comments on draft ACs. 12
5. Obtaining final review and approval of draft ACs. 12
6. Providing final ACs to the Office of Cost and Performance Management. 12
7. Distributing final Advisory Circulars to the public. 13
8. Filing records of ACs. 13

Appendix 1 Advisory Circular Numbering System 14

Appendix 2 Helpful Writing Principles 18

Appendix 3 Sample Bibliographic Styles 21

Appendix 4 AC Template 23

Appendix 5 Sample Request for Permission to Use Copyright material 24

CHAPTER 1. GENERAL INFORMATION ABOUT PREPARING AND ISSUING ADVISORY CIRCULARS (AC)

1. The purpose of this order.

This order describes:

* How to decide if you need to write an AC;

* How to write and organize ACs;

* The responsibilities of different offices in the AC process;

* What material ACs should cover;

* How to get ACs approved; and

* How to distribute ACs.

2. Who this order affects.

This order affects anyone who prepares and issues ACs.

3. What the AC System is.

The AC system:

a. Provides guidance such as methods, procedures, and practices acceptable to the Administrator for complying with regulations and grant requirements. ACs may also contain explanations of regulations, other guidance material, best practices, or information useful to the aviation community. They do not create or change a regulatory requirement.

b. Publishes ACs in an electronic database available on the internet.

c. Is the system FAA offices should use to provide guidance materials to the aviation community. It does not include Notices to Airmen (NOTAMS).

4. How this order differs from the previous order on ACs.

This order:

a. Stresses the need to keep ACs current.

b. Emphasizes the discretion of managers to design the coordination process to the needs of a particular document.

c. Clarifies there is no requirement to publish a proposed AC or a notice of an AC in the *Federal Register*.

d. Eliminates the requirement for printing and stockpiling ACs.

e. Eliminates the requirement for distributing paper copies of ACs.

f. Establishes an on-line database for posting draft and final ACs.

g. Implements a requirement to write ACs in plain language.

h. Provides a central place for posting ACs and other guidance on the internet.

i. Eliminates the requirement to microfiche ACs.

j. Replaces AC-02, the AC Checklist, with an electronic list of ACs updated on-demand by the AC database.

k. Clarifies when you may use the word "must" or other mandatory language in an AC.

l. Removes the requirement for the Office of the Chief Counsel to prepare a periodic Status of Federal Aviation Regulations.

m. Emphasizes the need to make ACs posted on the web compliant with section 508 of the Rehabilitation Act (section 508).

n. Requires guidance intended for the public, other than ACs, to be included in the AC database.

CHAPTER 2. RESPONSIBILITIES OF FAA OFFICES

1. The Office of Cost and Performance Management.

a. Maintains the AC numbering system, including assigning sequential numbers (see chapter 3 paragraph 5) to all ACs.

b. Establishes AC system requirements.

c. Maintains a searchable electronic database of ACs available through the internet.

d. Periodically reviews and updates database requirements, including standards for electronic filing of draft and final ACs, and coordinates changes with the database provider and with directives management staff.

e. Periodically reviews customer feedback and suggests improvements to the system.

f. Oversees the status of the AC system and notifies program offices of the need to review their ACs for currency.

g. Provides for paper copies of *final* ACs when necessary.

h. Provides on-line instruction within the database about how to post materials.

2. The Office or Service Director issuing an AC.

a. Ensures that all ACs comply with this Order.

b. Approves ACs for public comment and final publication.

c. Ensures ACs providing guidance on specific regulations are reviewed for currency if the underlying regulation is revised.

d. May delegate responsibilities under this Order down to the Division Manager level.

3. The Manager of the office issuing an AC.

a. Assigns directives management responsibility to specific staff and informs the Office of Cost and Performance Management who those staff are.

b. Assigns the proper subject matter number (see chapter 3 paragraph 5) to ACs.

c. Posts draft ACs in the database for comment. Drafts should comply with the accessibility requirements of chapter 3 paragraph 13 of this order.

d. Consolidates ACs on similar subjects.

e. Ensures that all ACs in the system remain current.

f. Identifies ACs to be canceled.

g. Determines coordination requirements for each AC.

h. Provides the database manager in the Office of Cost and Performance Management with information needed to maintain the AC database.

i. Ensures that each AC has an official file containing the information listed in paragraph 4-8 of this Order.

j. When an AC is signed, provides an electronic version for posting to the database. This version should comply with the accessibility requirements in chapter 3 paragraph 13 of this order.

4. Directives Management Staff in offices that originate ACs.

a. Provides procedural guidance and administrative support to authors of ACs.

b. Notifies the originating office of ACs that may be out-of-date and should be reviewed or removed from the AC system.

c. Ensures that ACs originating in the office meet all classification, numbering, writing, and clearance requirements.

d. Provides the public with paper copies of available *draft* ACs on request.

e. Ensures the electronic database of ACs contains the most current version of ACs belonging to that office.

5. Authors of ACs.

a. Have the most important role in getting the right document approved on time.

b. Become aware of issues other staff and offices have with a draft AC and work to resolve those issues as early in the drafting process as possible.

c. Meet the writing and organizational requirements of this order.

d. Help the directive management staff coordinate AC review and approval with appropriate offices.

e. Consider comments on draft ACs.

f. Get written permission to use copyrighted material.

g. Provide information needed to make ACs comply with section 508.

h. Review the entire text of revised or changed ACs to ensure consistency in provisions throughout the document.

i. Move the AC to the next step at the end of any review period after trying to resolve any outstanding issues from other offices, whether they have commented officially or not.

j. Inform the manager signing the AC of any issues that could not be resolved during the drafting process and whether any requested concurrences are missing.

6. Reviewing offices.

Reviewing offices ensure they review draft ACs and provide comments to the originating office within allotted review periods.

7. Office of the Chief Counsel.

a. Reviews all new, changed, and revised ACs for legal sufficiency. This office does not need to review ACs that contain only lists of information or ACs with only editorial changes. An editorial change is a minimal, non-substantive change to an AC, such as a change in an address or the name of the responsible office or fixing a typographical error. Editorial changes change neither the number nor the date of the AC.

b. Determines whether particular types of ACs may be issued without legal review.

c. Advises the originating office on legal issues related to issuing an AC.

d. Provides training to AC writers on how to avoid regulatory material in ACs.

CHAPTER 3. CREATING AN ADVISORY CIRCULAR

1. When you should write an AC.

a. You may need an AC to:

(1) Provide an acceptable, clearly understood method for complying with a regulation.

(2) Standardize implementation of the regulation or harmonize implementation for the international aviation community.

(3) Resolve a general misunderstanding of a regulation.

(4) Respond to a request from some government entity, such as General Accounting Office, National Transportation Safety Board or the Office of the Inspector General.

(5) Help the industry and FAA effectively implement a regulation.

(6) Explain requirements and limits of an FAA grant program.

(7) Expand on standards needed to promote aviation safety, including the safe operation of airports.

b. You should not write an AC every time you issue a new or changed regulation. If you know the public has questions about a draft regulation, clarify the issues in the regulation before you finalize it. This should eliminate the need for an AC.

2. When to change or revise an AC.

a. A revision modifies an entire AC. The new version has a new issue date and letter designation in the document number. It is always preferable to issue a revision, rather than a change. A revision results in a document that you consider completely updated.

b. A change adds new information or modifies existing information but does not update an entire AC. A change does not affect the AC number or document date. When you cannot update an entire AC but need to incorporate new information, a change is appropriate. In a change, only the new information is annotated with the new date. You should identify changed text by enclosing it in brackets and noting the date of the change inside the brackets.

3. How to cancel an AC.

If you need to cancel an AC, notify the Office of Cost and Performance Management. Give a brief reason about why you are canceling the AC, including the name and number of any replacement document. Only the manager of the office that created an AC has authority to cancel it.

4. General requirements an AC.

Follow these principles in writing an AC.

a. Your AC must be easy to read. Your goal is to make it understandable to your intended readers the first time they read it.

b. The title and purpose statement of your AC should clearly capture the entire subject matter of the AC. Users will be able to search titles and purposes in the AC database for material of interest to them.

c. Your AC may not include any material that imposes, reduces, or changes a regulatory burden on anyone.

d. You must provide the information needed to make the document comply with section 508. See **http://intranet.faa.gov/aio/508/** for information on how to do this.

5. The AC Numbering System.

There are three parts to an AC number, as in 25-42-C.

a. The first part of the number identifies the subject matter area of the AC. This corresponds to the parts of the FAA's regulations. See Appendix 1 for a list of subjects and related AC numbers. Use this numbering system even if your AC is not guidance on the FAA's regulations. AC numbers can also include a reference to a specific section in the regulations. Use an AC number like 25.253 when the entire AC applies only to section 253 within part 25 of the FAA regulations. The subject of Airport Noise and Compatibility Planning Advisory Circulars are further classified by adding a "/" and appending the FAA subject classification code like AC150/5000. An explanation of these codes is also contained in Appendix 1. The office originating an AC selects the subject area of the AC. In selecting a number, consider:

(1) The subject of the AC.

(2) The most specific number that accurately characterizes the entire subject matter of the AC. For example, number an AC on maintenance as AC 43-*XX*, the part of the Federal Aviation Regulations on maintenance, not AC 21-*XX*, which contains more general information about requirements for aircraft.

b. ACs are numbered sequentially within each subject area. The second part of the number beginning with the dash identifies this sequence. In the above example, this would be the 42nd AC relating to part 25. The Office of Cost and Performance Management assigns this number. To aid final processing of ACs, you can ask the Office to reserve a sequential number for you. Do not do this until your AC is ready for final review by the approving official and you are sure the AC will be issued.

c. The third part of the number is a letter assigned by the originating office showing the revision sequence if an AC is revised. The first version of an AC does not have a revision letter. In the above example, this is the third revision, as designated by the "C."

6. Structuring ACs.

Generally, organize your AC into paragraphs and two levels of subparagraphs, a.b.c. and (1)(2)(3). Avoid further levels. If you need to subdivide further, reexamine the organization of your material. If your AC is long, you may need to use chapters and sections to group major blocks of material.

a. The introductory material must include a purpose paragraph and a paragraph identifying the audience for the AC.

(1) Do not begin the Purpose paragraph with the words "The purpose of this AC is to . . ." Rather, make a direct statement about what the document does. For example, "This AC tells you how to mark your aircraft." Make sure you state the purpose clearly. Users will be able to search the purpose paragraph for material of interest to them. If the document rewrites earlier policies, you might start with "This AC restates FAA policy on . . . "

(2) If the AC explains a regulation, include a specific reference to the regulation covered and use the following language to make it clear that the AC contains only one possible means of complying with a regulation: "This AC is not mandatory and does not constitute a regulation. This AC describes an acceptable means, but not the only means, to [describe what the AC does.] However, if you use the means described in the AC, you must follow it in all important respects."

(3) In the second paragraph, state whom your AC affects. Clearly state which customer group should read the AC.

(4) Other material you may need in an introductory section includes the effective date if the document is not effective on the date it's issued or if different audiences should use the document starting on different dates. Make sure this information is clear. In complex cases, a table can help clarify this information, as in the following example:

If you operate at least this many aircraft:	You should have a safety program by:
100	June 1, 2002
25	January 1, 2003
5	June 1, 2003

(5) Include a brief explanation of important changes and list any prior ACs or other documents your document cancels.

b. The body of the AC.

(1) Organizing your AC. Possibly the most important principle of drafting is to organize the main body of your document in a way that's logical for the reader. Put considerable thought into how to organize your AC. Group material the way the reader expects and needs it.

There are several effective ways to organize documents. If your AC deals with a process, organize it chronologically, first step to last. You can also organize ACs by putting the most important points first and the minor ones at the end or by putting the standard provisions first and exceptions last. Sometimes a combination of these organizational principles might be appropriate. Whichever method you use, keep your reader in mind. Ask yourself what structure is most likely to encourage and enable your reader to follow your directions.

(2) Informative headings. Give each chapter, section, and paragraph an informative heading. Subparagraphs may or may not have headings, as needed. Headings are the guideposts readers use to navigate through a document. Don't shortchange the reader by using headings with insufficient information, such as "general" or "transfer" or "exception." Say "general information about markings" and "transferring responsibility for marking an aircraft" and "exceptions to marking requirements." Headings in the form of questions are often the most effective way to direct the reader to information he or she wants to find.

c. Administrative information. Place administrative information after the main body of the document. This material may include:

(1) Background information. If you must include more information on background than you explain in the main part of the AC, include a specific paragraph on background. Limit it to essential information.

(2) Requests for information. Place this last in the document. You must list the office readers can call for more information, including an office phone number, routing symbol and office e-mail address. You may also list the name of an individual, but only as a secondary source of information.

7. Essential writing principles.

There are a number of simple techniques to make your writing more powerful and effective. You can find additional guidance on these principles and on writing clearly and effectively in FAA's official Plain Language Writing Manual, available on **http://www.faa.gov/language/page2.htm.** This paragraph describes the most critical clear writing principles. You *must* follow these principles when writing an FAA AC. See Appendix 2 of this order for more writing ideas.

a. Use active verbs. Active verbs make it clear who is responsible for what. For example, look at the next to last sentence in the paragraph above. It should be clear that you, the reader, must do something--follow these principles. Too often, government writers say "These principles must be followed when . . . ," leaving it to the reader to guess who was required to use the principles. Most verbs in this document are active verbs. You should show a strong preference for active verbs in your document.

b. Use short sentences. Your *average* sentence length should be 20 words or fewer. If you use a list instead of running items together in a long sentence you can consider material after each hard return as a new sentence. You should rarely need a sentence over 50 words long.

c. Write in short paragraphs. Each paragraph should cover only one topic.

d. Limit abbreviations and acronyms. Limit your use of abbreviations to the main topic of your document. For example, if the document is about the Coordinated Operational Approval Process, you can use the abbreviation "COAP" throughout the document. Since that's what your document is about, it's unlikely to confuse your reader. But don't also use abbreviations for a handful of other concepts in the same document. Either write them out or use a short form of the name (for example, call an Aviation Rulemaking Advisory Committee "the committee," not ARAC) that will help your reader remember what you're talking about. If your document is long, you might want to include a list of abbreviations, or spell out an abbreviation the first time it's used in each chapter. If you use a term only two or three times, write it out every time.

e. Use pronouns. Research shows that readers relate better to documents that use pronouns. Pronouns make them feel the document is directed at them. It's especially important to use pronouns when you want people to do something, since pronouns help them understand they have a responsibility. When you write ACs, refer to the reader as "you." You may also use "we" to refer to FAA. But it's important to make sure your reader understands to whom a pronoun refers, especially if you are addressing more than one audience. One way to do this is to "define" the pronoun early in the document and then redefine it occasionally throughout long documents. For example, you might say, "If you are a certificate holder, you should . . ."

f. Use "must" to convey requirements. Do *not* use "shall." Shall is an ambiguous word. It can mean must, should, ought, or will. "Must" clearly conveys a requirement. See also section 9 below.

8. Using appendices.

You can generally present certain types of material most effectively in appendices, unless the material is brief. Make sure you mention each appendix in the text. Order your appendices in the same order they appear in the text.

a. Definitions. If you have a large number of terms specific to your AC, define them in an appendix and tell the reader near the beginning of the AC, for example in the "purpose" paragraph, where to find them. If you have only a few, just define them when they first occur in the text.

b. Bibliographies. You can include one or more appendices with bibliographic types of information, such as references and related publications. See Appendix 3 for samples of

bibliographic references.

9. Presenting regulatory material in an AC.

You may not use an AC to add, reduce, or change a regulatory requirement. However, since many ACs provide guidance material relating to regulations, you may need to talk about regulations in your AC.

a. You may include existing regulatory material in an AC if the purpose of your AC is to provide guidance on meeting regulatory requirements. But don't just repeat the regulation or require the reader to do extensive reading in the Code of Federal Regulations. Make sure your guidance is clear and complete.

b. When you write about a requirement included in an FAA regulation you may use regulatory language such as "you must" to explain it. Do not change regulatory requirements from "must" to "should" just because you are writing an AC. If you do, you will have changed the regulation! Use of "must" is discussed above in chapter 3 pargraph 7 of this order.

c. ACs may set forth acceptable ways of complying with a particular regulation. However, do not imply that the AC represents the only acceptable way to comply. A person is free to follow the AC or to propose a different way to meet the regulatory requirement. You should clarify that in most cases if someone decides to follow the AC as a means of complying with a requirement, he or she must conform to the AC in all important respects. It's appropriate to use "must" when describing how to conform to an acceptable means of compliance explained in the AC.

10. Using references in the text of an AC.

a. Place references in the text where they will be most useful. Make references clear, and tell readers in the administrative matters portion of the AC where they can get all referenced material. Italicize titles of books, articles, and other documents.

b. Keep cross-references to a minimum. Repeat brief items word for word. Cross-reference only lengthy, technical details covered in other available sources or in another paragraph of the AC. If you find you must frequently cross-reference material in the same AC but several sections away, reconsider your organization.

c. If you need to refer to a document with a long title, either repeat the entire title every time or use the complete title the first time and indicate in parentheses what shorter form of the title you will use in the rest of the AC.

d. Be specific when you reference other material. For example, don't just give the name of a long document. Give your readers as much information as possible to help them find the material you are using.

e. When referring to non-FAA documents that are updated frequently, consider referring to the "current edition" rather than a particular revision number when you are confident the document will not change in ways with which you do not agree.

f. Avoid referring to information that is subject to change, such as names of staff. Instead, refer to positions. Give general office phone numbers, not the number of a particular person.

g. When referring to laws, the Code of Federal Regulations, and so on, use the citation standards given in the Office of the Federal Register's Document Drafting Handbook, available at **http://www.nara.gov/fedreg/ddhhome.html.** Cite FAA's regulations in the form "14 CFR part 27," for subsequent references to the same regulation use "part 27."

h. Do *not* use the acronym "FAR" to refer to FAA's regulations. Neither the Department of Transportation nor the Office of the Federal Register allow us to use "FAR" for our regulations.

The Federal Acquisition Regulations apply government-wide and are allowed to use the acronym "FAR."

11. Formatting an AC.

a. For most ACs, you should use the format in the template in Appendix 4. You can use a template or the styles function in your word processing software to format your AC easily. You can also create your own templates. When used correctly, templates and styles will ensure consistent formatting throughout your document and ease the process of producing PDF and HTML versions of your AC. Creating accessible documents can take time, so anything you can do to ensure consistent formatting will lessen the amount of time needed to post your document in the AC database. For more information about preparing accessible files, see **http://intranet.faa.gov/aio/508/.** In some cases, you may use a format that differs significantly from that shown in Appendix 4, if it better serves the needs of your customers.

b. Emphasize only those words, phrases, and sentences that are important. Use bold or italics for emphasis. Never use capitals for this purpose.

c. Consult the *GPO Style Manual* if you have questions about capitalization and abbreviations. You can find the manual online at **http://www.access.gpo.gov/styleman/2000/style001.html.**

d. Use quotation marks for direct quotations or to set off ordinary words used in an unusual way. Do not use quotation marks to enclose titles of chapters, sections, or paragraphs of ACs.

e. Using and numbering figures. One picture is often worth a thousand words. Use figures to insert examples, charts, tables, and other illustrative material. In many cases you can convey complex material more simply in a figure than in text. Place the figure close to, and after, the text that explains it. Try to limit figures to one page; if they go over that, repeat the name and figure number on each page. Make sure all figures have informative headings. Use foldout sheets sparingly.

(1) If you use a table or chart such as an if-then table as a substitute for text, consider it a paragraph and give it a paragraph number. Introduce the chart with some textual information, such as "the following table shows suggested inspection frequencies based on the age of the part." When creating tables, keep in mind accessibility requirements. The more complex the table and the more levels of headers you include, the more difficult it will be to prepare it for the Web. For information about preparing accessible tables, see **http://intranet.faa.gov/aio/508/.**

(2) Call all other types of illustrations "figures." This includes photos, drawings, and so on. Do not give figures paragraph numbers. Make sure the title of the figure is informative. Number figures consecutively throughout the entire AC, unless the AC is subdivided into chapters. In that case, start over with figure 1 within each chapter and include the chapter number as part of the figure number, for example, figure 1-1, 1-2, 2-1, and so on. You should mention every figure in the text before it occurs.

12. Using copyrighted material and giving credit to others.

a. You must get written permission from the copyright owner or publisher before using copyrighted material, including photos or illustrations, from a non-government source. In your request, explain how you will use the material and that it is for an FAA document. Ask the copyright owner to state how he or she wishes the credit or acknowledgment worded in your document. Keep a copy of the written permission with the record of the AC. Send the copyright owner a courtesy copy of the completed FAA publication. Appendix 5 shows a sample request letter and permission form.

b. Advise other government agencies when you plan to use any part of that agency's

publication.

c. If you want to give credit to persons who were helpful in developing your AC, include them all in one place in a foreword or preface or in an acknowledgments paragraph in the administrative section of your AC.

13. Making an AC accessible.

All ACs posted on-line must comply with section 508. This will require you to provide certain information about your document, especially about charts, tables, photos, and other graphics. To find out what you can do to make your document compliant, see **http://intranet.faa.gov/aio/508/.** When you give the Office of Cost and Performance Management your final AC to post on the database, follow the instructions at that site to ensure your document will comply with these legal requirements.

CHAPTER 4. PROCESSING AND DISTRIBUTING AN ADVISORY CIRCULAR

1. Preparing draft ACs.

Managers must ensure that draft ACs are clear and complete before beginning the review process. When preparing a draft, authors should coordinate informally with other offices, including the Office of the Chief Counsel, to resolve known issues.

2. Developing a coordination list.

The originating organization has discretion in determining what other FAA organizations need to review draft ACs. The FAA generally also provides an opportunity for all or select segments of the public to comment on draft ACs, although there is no legal requirement to do so. In preparing the request for comments, you should indicate the customer community and method of response for all comments. Sending draft ACs to organizations with no interest in them creates unnecessary work and introduces delay into the review process. Coordinate your document electronically whenever possible. You do not need to coordinate outside the originating office for an editorial update.

3. Distributing draft ACs for comment.

While generally we complete an internal FAA review process before releasing a draft AC for public review, you may distribute draft ACs for review within FAA and to the public simultaneously. The FAA will notify anyone who has registered an interest in the subject matter of the AC that the draft is available for review in the database.

a. Clearly mark draft documents DRAFT and note they are not official policy.

b. Designate interested FAA offices and external customers for comment and allow at least 30 calendar days for them to review a draft AC.

c. If possible, use electronic means to distribute your draft AC and to receive comments. If you are making the draft available to external customers, post it in the AC database.

d. Provide electronic and mailing addresses to which reviewers can send comments.

4. Considering comments on draft ACs.

Consider all comments received from both internal and external customers. You should also keep a record of why you decline to adopt specific comments. If you change the draft substantially based on comments, you may want to get internal or external review, or both, on another draft before preparing a final document. As stated in chapter 4 paragraph 1 above, consider resolving known issues before sending your AC out for formal comment to limit the need to re-draft and re-coordinate documents.

5. Obtaining final review and approval of draft ACs.

Do not submit ACs for signature before subject matter, editorial, legal, and management review. Final management review includes information about how comments, if requested, have been addressed and a review for compliance with the accessibility requirements of section 508.

6. Providing final ACs to the Office of Cost and Performance Management.

When a final version of a new, revised, or changed AC or any other type of guidance intended for the public is approved for release to the public, the originating office must provide an electronic copy to the Office of Cost and Performance Management for posting on the AC database. Provide

the following standard data elements, which may not appear in the document itself:

a. Originating office name and routing symbol.

b. Name, routing symbol, email address, and telephone number of a contact point for the AC.

c. Brief synopsis of the AC content.

d. Related ACs, Orders, Regulations.

7. Distributing final ACs to the public.

a. The major means of distributing final ACs and other guidance is through the AC database. The FAA will notify anyone who has registered an interest in the subject matter of the AC that the final is available in the database. There is no legal requirement to publish either the AC itself or a notice that it's final in the *Federal Register*.

b. The Office of Cost and Performance Management will arrange to provide paper copies of ACs when needed.

8. Filing records of ACs.

The originating office must keep an official file of each AC it initiates. The file can be maintained in paper or electronic format. If you transfer the file to the records center, check with the Office of Cost and Performance Management for current procedures before transferring the file to the Records Center. For additional information, see FAA Order 1350.15C, Records Organization, Transfer, and Destruction Standards, series 1710, Publications.

The official file should include, as appropriate:

a. A copy of the final AC with original or electronic signature.

b. A copy of the draft AC that went out for comment.

c. Copies of the clearance records.

d. Copies of the comments received and your disposition of those comments.

e. A copy of the permission to use any copyrighted material.

f. Any other material you consider necessary, such as a copy of the rule the AC is addressing.

APPENDIX 1

Advisory Circular Numbering System

1. General information about subject numbers.

Advisory circular numbers relate to the Code of Federal Regulations subchapters and parts, and when appropriate, to the specific sections of the regulations.

2. Specific subject numbers.

The subject numbers and related subject areas are as follows. Consult the Office of Cost and Performance Management for subjects not shown in this list or if you don't want to relate your AC to the Code of Federal Regulations.

Subchapter	Part	Topic
00		**GENERAL**
	1	Definitions and Abbreviations
10		**PROCEDURAL RULES**
	11	General Rule-Making Procedures
	13	Investigation and Enforcement Procedures
20		**AIRCRAFT**
	21	Certification Procedures for Products and Parts
	23	Airworthiness Standards: Normal, Utility, and Acrobatic Category Airplanes
	25	Airworthiness Standards: Transport Category Airplanes
	27	Airworthiness Standards: Normal Category Rotorcraft
	29	Airworthiness Standards: Transport Category Rotorcraft
	31	Airworthiness Standards: Manned Free Balloons
	33	Airworthiness Standards: Aircraft Engines
	34	Fuel Venting and Exhaust Emission Requirements for Turbine Engine Powered Airplanes
	35	Airworthiness Standards: Propellers
	36	Noise Standards: Aircraft Type and Airworthiness Certification
	39	Airworthiness Directives
	43	Maintenance, Preventive Maintenance, Rebuilding and Alteration
	45	Identification and Registration Marking
	47	Aircraft Registration
	49	Recording of Aircraft Titles and Security Documents
60		**AIRMEN**
	61	Certification: Pilots and Flight Instructors
	63	Certification: Flight Crewmembers Other Than Pilots
	65	Certification: Airmen Other Than Flight Crewmembers

	67	Medical Standards and Certification
70		**AIRSPACE**
	71	Designation of Federal Airways, Area Low Routes, Controlled Airspace, and Reporting Points
	73	Special Use Airspace
	75	Establishment of Jet Routes and Area High Routes
	77	Objects Affecting Navigable Air-space
90		**AIR TRAFFIC AND GENERAL OPERATING RULES**
	91	General Operating and Flight Rules
	93	Special Air Traffic Rules and Airport Traffic Patterns
	95	IFR Altitudes
	97	Standard Instrument Approach Procedures
	99	Security Control of Air Traffic
	101	Moored Balloons, Kites, Unmanned Rockets and Unmanned Free Balloons
	103	Ultralight Vehicles
	105	Parachute Jumping
	107	Airport Security
	108	Airplane Operators Security
	109	Indirect Air Carrier Security
119		**CERTIFICATION: AIR CARRIERS AND COMMERCIAL OPERATORS**
120		**AIR CARRIERS, AIR TRAVEL CLUBS, AND OPERATORS FOR COMPENSATION OR HIRE: CERTIFICATION AND OPERATIONS**
	121	Certification and Operations: Domestic, Flag, and Supplemental Air Carriers and Commercial Operators of Large Aircraft
	125	Certification and Operations: Airplanes Having a Seating Capacity of 20 or More Passengers or a Maximum Payload Capacity of 6,000 Pounds or More
	127	Certification and Operations of Scheduled Air Carriers with Helicopters
	129	Operations of Foreign Air Carriers
	133	Rotorcraft External-Load Operations
	135	Air Taxi Operators and Commercial Operators
	137	Agricultural Aircraft Operations
	139	Certification and Operations: Land Airports Serving CAB-Certificated Air Carriers
140		**SCHOOLS AND OTHER CERTIFICATED AGENCIES**
	141	Pilot Schools
	143	Ground Instructors
	145	Repair Stations
	147	Aviation Maintenance Technician Schools

150		**AIRPORT NOISE COMPATIBILITY PLANNING**
	151	Federal Aid to Airports
	152	Airport Aid Program
	155	Release of Airport Property from Surplus Property Disposal Restrictions
	156	State Block Grant Pilot Program
	157	Notice of Construction, Alteration, Activation, and Deactivation of Airports
	158	Passenger Facilities Charges
	159	National Capital Airports
	159/10	Washington National Airport
	159/20	Dulles International Airport
	161	Notice and Approval of Airport Noise and Access Restrictions
	169	Expenditures of Federal Funds for Nonmilitary Airports or Air Navigational Facilities Thereon
170		**NAVIGATIONAL FACILITIES**
	170	Establishment and Discontinuance Criteria for Airport Traffic Control Tower Facilities
	171	Non-Federal Navigation Facilities
180		**ADMINISTRATIVE REGULA-TIONS**
	183	Representatives of the Administrator
	185	Testimony by Employees and Production of Records in Legal Proceedings
	187	Fees
	189	Use of Federal Aviation Administration Communication System
190		**WITHHOLDING SECURITY INFORMATION**
	191	Withholding Security Information from Disclosure Under the Air Transportation Security Act of 1974
	198	Aviation Insurance Program
210		**FLIGHT INFORMATION**
	211	Aeronautical Charts and Flight Information Publications
	212	Publication Specification: Charts and Publications
400		**COMMERCIAL SPACE TRANSPORTATION**
	413	Licensing Application Procedures
	440	Financial Responsibility for Licensed Launch Activities

1—Based on Federal Aviation Regulation Subchapter Titles (Excluding the 210 series)

2—Based on Federal Aviation Regulation Part Titles (Excluding the 210 series)

3. When the volume of circulars in a series warrants a subsubject breakdown, the general number is followed by a slash and a subsubject number. The 150 series, Airports, has the following subsubjects:

150/5000	Airport Planning
150/5020	Noise Control and Compatibility Planning for Airports
150/5100	Federal-aid Airport Program
150/5150	Surplus Airport Property Conveyance Programs
150/5190	Airport Compliance Program.
150/5200	Airport Safety–General.
150/5210	Airport Safety Operations (Recommended Training, Standards, Manning)
150/5220	Airport Safety Equipment and Facilities
150/5230	Airport Ground Safety System
150/5240	Civil Airports Emergency Preparedness.
150/5300	Design, Construction, and Maintenance-General.
150/5320	Airport Design
150/5325	Influence of Aircraft Performance on Aircraft Design
150/5335	Runway, Taxiway, and Apron Characteristics
150/5340	Airport Visual Aids.
150/5345	Airport Lighting Equipment
150/5360	Airport Buildings.
150/5370	Airport Construction.
150/5380	Airport Maintenance
150/5390	Heliports.

APPENDIX 2

Helpful Writing Principles

In general, you should follow these principles when writing ACs.

a. Don't be wordy. Much government writing is too wordy. When you pad your writing with excess words, you make it weaker. Look at FAA's Plain Language Manual for more guidance. You can reach this manual from **http://www.faa.gov/language/page2.htm.** Here's some examples of how we introduce excess words into our writing:

(1) Wordy phrases. Here are some common wordy phrases and long words, and shorter, plain alternatives.

accordingly	so
addressees	you
as a means of	to
as prescribed by	in, under
assist, assistance	aid, help
at a later date	later
at the present time	now
commence	begin, start
constitutes	forms, makes up
facilitate	help
for the purpose of	to, for
heretofore	until now
implement	start, carry out
in accordance with	under
in order to	to
in the event that	if
initiate	begin, start
on a monthly basis	monthly
should it appear that	if
with regard to	about

You can find many more common substitutes at **http://www.plainlanguage.gov/** in the reference library under "simpler words and phrases."

(2) Hidden verbs. Hidden verbs are verbs used as nouns. They are very common in bureaucratic writing, but they make writing weak. Try to use the simplest form of a verb you can. The simple present tense is the strongest way to write a verb. Here's some examples of hidden verbs and how to make the sentences more powerful:

The inspector will carry out a review of the company's programs.

The inspector will review the company's programs.

This plan assists in the management of . . .

This plan manages . . .

To determine part life, make a calculation of the . . .

To determine part life, calculate . . .

The production of an adequate inspection report depends on . . .

Producing an adequate inspection report depends on . . .

(3) Unnecessary qualifiers. We frequently use qualifiers that add nothing to our meaning. The classic example from everyday language is "*very* dead." Here's some examples we see in FAA writing:

Their claim was *totally* unrealistic.

We are *completely* convinced.

It is *definitely* worth explaining.

b. Use vertical lists. It's easy for readers to get lost in run-on sentences. Vertical lists are an ideal way to convey a series of items. They're much easier for readers to follow. Consider this example:

Along with your letter of application, submit a statement of conformance certifying that you have met the requirements of Subpart O of part 21 and that the article meets the TSO in effect on the date of your application; one copy of the data the TSO requires; and a description of your quality control system.

Along with your letter of application, submit the following:

(i) A statement of conformance certifying that you have met the requirements of Subpart O of Part 21 and that the article meets the TSO in effect on the date of your application;

(ii) One copy of the data the TSO requires; and

(iii) A description of your quality control system.

c. Use if-then tables. Tables help your reader see relationships in a way that dense text never could. The FAA publishes a lot of material that could be conveyed more clearly in if-then tables. Here's one example:

Text version:

What are the regulatory requirements to get a sport pilot certificate?

a. To get a student sport pilot certificate·

(1) You must be at least 16 years old to apply for a student pilot certificate for the operation of a light-sport aircraft other than a glider or balloon.

(2) You must be at least 14 years old to apply for a student pilot certificate for the operation of a light-sport aircraft that is a glider or balloon.

(3) You must be able to read, speak, write, and understand the English language If you cannot meet one of these requirements due to medical reasons, the FAA may place operating limitations on your student pilot certificate as are necessary for the safe operation of light-sport aircraft.

* * * * *

b. To get a sport pilot certificate·

(1) You must be at least 17 years old to apply for a sport pilot certificate for the operation of a light-sport aircraft other than a glider or balloon.

(2) You must be at least 16 years old to apply for a sport pilot certificate for the operation of a light-sport aircraft that is a glider or balloon.

(3) You must be able to read, speak, write, and understand the English language. If you cannot meet one of these requirements due to medical reasons, the FAA may place operating limitations on your sport pilot certificate as are necessary for the safe operation of the light-sport aircraft.

Table version:

When am I eligible for a certificate?

To be eligible for a...	**You must be able to read, speak, write, and understand English and be...**
(a) Student pilot certificate for operating light-sport aircraft,	At least 16 (or 14 if you are applying to operate a glider or balloon)
(b) Sport pilot certificate,	At least 17 (or 16 if you are applying to operate a glider or balloon).

(c) If you can't read, speak, or understand English due to medical reasons, the FAA may place operating limits on your certificate to ensure the safe operation of light-sport aircraft

d. Avoid "noun sandwiches." Too much government writing uses too many noun clusters—groups of nouns "sandwiched" together. Avoid these confusing constructions by using more prepositions and articles to clarify the relationships among the words. Here's a typical FAA example: "drug testing and alcohol misuse prevention regulations." It would be better to say "regulations about drug testing and preventing alcohol misuse."

APPENDIX 3

Sample Bibliographic Styles

This appendix shows different document types you might want to cite in your AC. For each type of document, we suggest how to cite it the first time, any additional times, and how to show it in a bibliography.

1. ACs.

In the text: AC 120-57, *Surface Movement Guidance and Control System* (thereafter AC 120-57)

In the bibliography: U.S. Department of Transportation. Federal Aviation Administration. Advisory Circular 120-57, *Surface Movement Guidance and Control System,* current edition.

2. Orders.

In the text: Order 8700.1, *General Aviation Operations Inspector's Handbook* (thereafter Order 8700.1)

In the bibliography: U.S. Department of Transportation. Federal Aviation Administration. Order 8700.1, *General Aviation Operations Inspector's Handbook*, current edition.

3. Code of Federal Regulations.

In the text: Certification and Operation: Land Airports Serving Certain Air Carriers, title 14 CFR part 139 (thereafter part 139)

In the bibliography: Certification and Operation: Land Airports Serving Certain Air Carriers. *Code of Federal Regulations*. Title 14, part 139, 2002 ed.

4. United States Code.

In the text: title 49, *United States Code*

section 47107(n), (thereafter: 49 U.S.C. 47107(n))

In the bibliography: Wendell H. Ford Aviation Investment and Reform Act for the 21st Century. *United States Code.* Title 49, section 47107, 2000 ed.

5. Acts.

In the text: Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (AIR-21), Public Law 106–181 (thereafter AIR-21)

In the bibliography: Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (AIR-21). Public Law 106–181, 106 Cong., 5 April 2000.

6. Documents Published in the Federal Register.

In the text: Occupational Safety and Health Issues for Airline Employees, October 19, 1999 (thereafter 64 FR 56275)

In the bibliography: U.S. Department of Transportation. Federal Aviation Administration, Occupational Safety and Health Issues for Airline Employees, 64 *Federal Register* 191 (19 October 1999) p. 56275.

7. Reports To Congress.

In the text: *A Feasibility Study of Regional Air-Cargo Airports: Including a Case Study of a Regional Air-Cargo Center for the Washington, D.C., Area* (1991)

In the bibliography: U.S. Department of Transportation. Federal Aviation Administration. *A Feasibility Study of Regional Air-Cargo Airports: Including a Case Study of a Regional Air-Cargo Center for the Washington, D.C., Area.* A report of the Federal Aviation Administration pursuant to Senate Report 101–121 accompanying the Department of Transportation and Related Agencies Appropriations Act, 1990. Washington, DC: August 1991.

8. Documents Available on the World Wide Web as well as in Paper.

In the text: *Reusable Launch and Reentry Vehicle System Safety Process*, Advisory Circular 431.35-2. (See http://ast.faa.gov/licensing/regulations/stat_reg.htm).

System Safety Program Requirements. MIL-STD 882C. (See http://npoesslib.ipo.noaa.gov/techlib/doc124/doc124.pdf.

In the bibliography: *Reusable Launch and Reentry Vehicle System Safety Process*, Advisory Circular 431.35-2, Washington, DC: FAA, 2000. (See http://ast.faa.gov/licensing/regulations/stat_reg.htm.)

System Safety Program Requirements. MIL-STD 882C, U.S. Air Force Material Command, Wright-Patterson AFB, OH, 1993. (See http://npoesslib.ipo.noaa.gov/techlib/doc124/doc124.pdf.)

9. Other Publications.

In the text: *FAA Aerospace Forecasts, Fiscal Years 2001–2012* (2001)

In the bibliography: U.S. Department of Transportation. Federal Aviation Administration. *FAA Aerospace Forecasts, Fiscal Years 2001–2012.* Washington, DC: March 2001.

APPENDIX 4

AC Template

Instructions for using the AC template as well as electronic versions of one- and two-column sample ACs are available online at **http://intranet.faa.gov/avr/Actemplate.doc.**

This order does not require the use of templates, but it suggests their use as a way to ensure proper formatting, enable the easy generation of a Table of Contents, and simplify the process of creating PDF and HTML versions of the document.

If you choose to use templates when creating your ACs, you may use the provided samples or create your own. The template instructions provide guidance as to the formatting used in the samples and when you should use specific heading and text styles.

APPENDIX 5

Sample Request for Permission to Use Copyright Material

E X A M P L E

Random House Publishers Inc

123 Lexington Avenue

NewYork, NY 10004

SUBJECT: Permission to Use Copyrighted Material

Sir/Madam:

I would like permission to quote from (author's name), ("Title of Book"), (edition number, year of publication).

I will use quotes from (chapter X, paragraph Y on page___) to *(give a reason. For example,"to reinforce our narrative on certain aircraft performance characteristics.")* They will appear in a Technical Standard Order *(or Advisory Circular, or Order)* entitled (*provide title*), which the FAA will make available to agency personnel and to the aviation public. I will give you credit in our publication. Please let me know how you would like me to word the credit statement. Also, please let me know if you would like a courtesy copy of the final publication.

Please confirm receipt of this request and advise me if you need further information. I look forward to your prompt written response.

Sincerely,

Jacqueline Cochran

AVR-XXX

Telephone (202) 267-XXXX

E X A M P L E