



**U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

National Policy

**ORDER
1320.46D**

Effective Date:
04/07/15

SUBJ: FAA Advisory Circular System

The Advisory Circular (AC) system 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.

A handwritten signature in black ink, appearing to read "V Wassmer".

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Chapter 1. General Information about Preparing and Issuing Advisory Circulars (ACs)

- 1. Purpose of This Order.** This order describes:
 - a. How to decide if you need to write an AC;
 - b. How to write and organize ACs;
 - c. The responsibilities of different offices in the AC process;
 - d. What material ACs should cover; and
 - e. How to get ACs approved.
- 2. Who This Order Affects.** This order affects anyone who prepares and issues ACs.
- 3. Where You Can Find This Order.** You can find this order on the MyFAA Employee Web site at https://employees.faa.gov/tools_resources/orders_notices/. This order is available to the public at http://www.faa.gov/regulations_policies/orders_notices/.
- 4. Cancellation.** FAA Order 1320.46C, *Advisory Circular System*, dated May 31, 2002, is cancelled.
- 5. What the AC System is.** The AC system:
 - a. Provides guidance materials to the aviation community. This guidance can be methods, procedures, and practices acceptable to the Administrator for complying with regulations and grant requirements. It does not include Notices to Airmen.
 - b. Publishes ACs in an electronic database available on the Internet.
- 6. How This Order Differs from the Previous Order.** This order:
 - a. Stresses the need to keep ACs current.
 - b. Eliminates the requirement for printing and stockpiling ACs.
 - c. Requires all *new* ACs to use the decimal numbering system as approved by the Innovation Council on 12/5/2013, except in the rare instances where a unique circumstance requires the AC to use an alternate, industry standard system.
 - d. Provides a process for determining whether to update the paragraph numbering to the decimal numbering system for an *existing* AC or retain the existing paragraph numbering.
 - e. Provides access to sample long and short AC templates in Appendix A that FAA lines of business (LOBs) and staff offices (SOs) can use and/or modify as needed to fit their needs.

f. Emphasizes the need to make ACs posted on the web compliant with title 29 U.S.C. 794d (referred to as section 508).

Chapter 2. Responsibilities of FAA Offices

1. The Office of Strategy & Performance Service, ASP-1.

- a.** Maintains the AC numbering system (see paragraph 5 of chapter 3), including assigning sequential numbers 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 directives management staff.
- e.** Periodically reviews customer feedback and suggests improvements to the system.
- f.** Oversees the status of the AC system and notifies the Office of Primary Responsibility (OPR) of the need to review their ACs for currency.

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.
- e.** May designate specific staff within their service or staff office to execute directive management functions for the entire organization.

3. The Manager of the Office Issuing an AC.

- a.** Informs ASP-1 who has the directives management responsibility for a specific service or staff office.
- 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.
- d.** Consolidates ACs on similar subjects.
- e.** Ensures that all ACs in the system remain current.
- f.** Identifies ACs to be canceled.

g. Determines, in consultation with the directives management staff, the coordination requirements for each AC.

h. Provides the database manager in the Performance, Policy & Records Management Branch, ASP-110, with information needed to maintain the AC database.

i. Ensures that each AC has an official file containing the information listed in paragraphs 8.a through 8.f of chapter 4.

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

4. Directives Management Staff in Service or Staff 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. Ensures the electronic database of ACs contains the most current version of ACs belonging to that office.

e. Approves requests to the exception process for paragraph numbering (see Appendix B).

f. Verifies that the AC is section 508 compliant.

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. Ensure the AC complies with section 508 (29 U.S.C. 794d). Under that section, the FAA must give disabled employees and members of the public access to information that is comparable to access available to others. In 1998, Congress amended the Rehabilitation Act of

1973 to require Federal agencies to make their electronic and information technology accessible to people with disabilities. The OPR is responsible for making ACs compliant with section 508.

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

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

j. Inform the manager signing the AC of any issues unresolved 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 (see paragraph 2.c of chapter 3).

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 inadvertently creating or changing a regulatory requirement with an AC.

Chapter 3. Creating an Advisory Circular

1. Why 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 Government Accountability Office, National Transportation Safety Board, or the Office of the Inspector General.
- (5) Help the industry and the 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.

2. When to Revise or Change an AC.

a. A revision modifies an entire AC. The new version has a new issue date and letter designation in the document number (see paragraph 5.c of this chapter). It is always preferable to issue a revision, rather than a change. A revision results in a document that you consider completely updated.

b. 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. The OPR must include a vertical change bar in the left or right margin to identify changes to the text of the AC. The header of each change page must have the change number and new date.

c. 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 do not change the number or date of the AC.

d. Whenever possible, revise the AC rather than issue a change. If the change affects more than 35 percent of the AC, it must become a revision.

3. How to Cancel an AC. If you need to cancel an AC, notify the Performance, Policy & Records Management Branch. Prepare a memorandum giving a brief reason about why you are canceling the AC and 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 of 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 must clearly capture the entire subject matter of the AC. Users must be able to search titles and purposes in the AC database for material of interest to them.

c. You must provide the information needed to make the document comply with section 508. See https://my.faa.gov/org/staffoffices/afn/information/programs/section_508.html for information on how make documents 508 compliant.

5. The AC Numbering System. There are three parts to an AC number, as in "25-42C."

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 C 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. ACs are further classified by adding a "/" and appending the FAA subject classification code like AC 150/5000. An explanation of these codes is also contained in Appendix C. 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 FAA 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 (AC 25-42C), this would be the 42nd AC relating to part 25. The Performance, Policy & Records Management Branch 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." Similarities between

certain alpha and numeric characters often result in confusion when used. Therefore, the characters “P” and “O” should be avoided.

6. Structuring ACs. The best practice is to organize your AC into no more than three levels of paragraphs, using a decimal numbering system (see Appendix A), except when explaining technical material. If you need to subdivide further, you should consider reorganizing 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 who 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 is issued, or if different audiences should use the document starting on different dates. Make sure this information is clear.

(5) You should also include a brief explanation of important changes and list any prior ACs or other documents your document cancels. You might also consider adding a principal change paragraph to revisions, as well as changes, to help readers identify where (or if) major changes have been made to the AC.

b. The body of the AC.

(1) Organizing your AC.

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

(b) 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. A flow chart could also be used.

(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. Do not 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, then 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 the FAA's official Plain Language Writing Manual, available at https://my.faa.gov/tools_resources.html. This paragraph describes the most critical clear writing principles. You *must* follow these principles when writing an AC. See Appendix D 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. For groups of items, use bulleted or numbered lists.

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 is what your

document is about, it is unlikely to confuse your reader. But do not 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 the Aviation Rulemaking Advisory Committee "the committee," not ARAC) that will help your reader remember what you are 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 is 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 is especially important to use pronouns when you want people to do something, since pronouns help them understand they have a responsibility. When you write an AC, refer to the reader as "you." You may also use "we" to refer to FAA. But it is 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 regulatory requirements. Do *not* use "shall." Shall is an ambiguous word. It can mean must, should, ought, or will. "Must" clearly conveys a requirement.

8. Using Appendices. You can 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 E for samples of bibliographic references.

9. Presenting Regulatory Material in an AC. You may not generally 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, do not just repeat the regulation or require the reader to do extensive reading in the FAA 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 paragraph 7.f of this chapter.

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 meet the regulatory requirement in a different way.

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 section of the AC where they can get all referenced material. Italicize titles of books, articles, and other documents.

b. 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.

c. Be specific when you reference other material. For example, do not 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.

d. 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.

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 (CFR), and so on, use the citation standards given in the Office of the Federal Register's Document Drafting Handbook, which is available at <http://www.archives.gov/federal-register/index.html>.

h. Use the acronym "CFR" to refer to the FAA's regulations. Do *not* use the acronym "FAR" to refer to FAA regulations. Neither the Department of Transportation nor the Office of the Federal Register allows us to use "FAR" for our regulations. The Federal Acquisition Regulations apply government-wide, and we are only allowed to use the acronym "FAR" for those regulations.

i. When you first cite the CFR, you must use the full citation, which includes the title and part, or section, numbers (for example, "14 CFR part 27" or "14 CFR 153.1"). Do not insert a section symbol (§) between the CFR acronym and section number. After you have used the full citation in your AC, any subsequent citation of that same part/section, or other sections of that same part, does not need to include the CFR acronym. For subsequent citations to a section, you should only use the section symbol (§), except as discussed in paragraphs (1) and (2) below. For example, your first reference is written as "14 CFR 25.571," and thereafter you may write "§ 25.571," "§ 25.1529," and "part 25."

(1) When citing a section of an appendix to the CFR, spell out the word "section" instead of using the section symbol. The justification for this is that the appendix sections of the CFR are not denoted by a section symbol as they are in regular sections of the CFR.

(2) If you begin a sentence by citing a CFR section, spell out the word "section" instead of using the section symbol (§).

(3) If you are citing multiple paragraphs of a particular CFR section, use only one section symbol (for example, § 25.613(a) through (c)).

(4) If you are citing multiple CFR sections and the citations are joined by the conjunction *and*, use double section symbols (or pluralize *section* if it occurs at the beginning of a sentence). If the citations are joined by the conjunction *or*, use a single section symbol for each citation (or singularize *section*). For example, §§ 25.571 and 25.671; but, § 25.571 or § 25.671

11. Formatting an AC.

a. For new ACs, you must use the decimal numbering system shown in the sample templates in Appendix A, unless a unique circumstance, such as the adoption of guidance developed by another agency, requires the use of another system. (Authors should speak to their Directives Management Officers about such cases.) If you are revising an AC, you may retain the existing paragraph numbering if updating to the decimal numbering system would adversely affect safety, increase costs, or there are unique circumstances for retaining the existing paragraph numbering. For more information, see the "exception process" in Appendix B. The most common practice, however, should be to use the decimal numbering system wherever possible.

b. You can use a template or the styles function in your word processing software to format your AC. 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 https://my.faa.gov/org/staffoffices/afn/information/programs/section_508.html. Appendix A provides optional sample Microsoft Word templates that LOBs/SOs can use. These templates include the basic styles that most ACs use, but they might need to be modified to add additional styles to fit the content of specific ACs. In some cases, you may use a format that differs significantly from that shown in Appendix A, if it better serves the needs of your customers.

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

d. Consult the *GPO Style Manual* if you have questions about capitalization and abbreviations. You can find the manual online at <http://www.gpo.gov/fdsys/search/pagedetails.action?granuleId=&packageId=GPO-STYLEMANUAL-2008>.

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

f. Using and numbering figures/tables. One picture is often worth a thousand words. Use figures to insert examples, charts, and other illustrative material. Use a table to present tabular information that cannot be clearly presented in text. In many cases, you can convey complex material more simply in a figure or table than in text. Place the figure/table close to, and after, the text that explains it. Try to limit figures/tables to one page; if they go over that, repeat the name and figure/table number on each page. Make sure all figures/tables have informative headings. Use foldout sheets sparingly.

(1) If you use a table as a substitute for text, consider it a paragraph and give it a paragraph number. Introduce all tables with 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 https://employees.faa.gov/org/staffoffices/afn/information/programs/section_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.

(3) Number figures/tables consecutively throughout the entire AC, unless the AC is divided into chapters. In that case, restart the figure/table numbering within each chapter and include the chapter number as part of the figure/table number, for example, figure 1-1, 1-2, 2-1, and so on; or table 1-1, 1-2, 2-1, and so on. The figure and table numbering are independent (i.e., there may be a figure 1-1 and table 1-1 in the same chapter). You should mention every figure/table 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 F 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/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 https://my.faa.gov/org/staffoffices/afn/information/programs/section_508.html. When you give the Performance, Policy & Records Management Branch your final AC to post on the database, follow the instructions on that site to ensure your document will comply with these legal requirements.

14. Advisory Circular Feedback. If you use an AC and find discrepancies or think changes should be made, notify the originator using the Advisory Circular Feedback Form in Appendix G, or similar form, to submit your information. When updating or revising an AC, OPR must consider this feedback. Anyone may submit a change request.

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 delays 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 we generally 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. Prepare [FAA Form 1300-2-1](#), *Advisory Circular Clearance Record*, for all draft ACs sent for coordination. (The AC clearance record form is available at https://my.faa.gov/tools_resources/branding_writing/legal.html. Each office receiving a request for clearance must sign FAA Form 1300-2-1 and return it to the originating office. An explanation is required if the non-concur column is checked.

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

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

d. 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.

e. 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 paragraph 1 of this chapter, 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 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 Performance, Policy & Records Management Branch. 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 Performance, Policy & Records Management Branch 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. 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 is final in the *Federal Register*.

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 Performance, Policy & Records Management Branch for current procedures before transferring the file to the Records Center. Check the originating office's Official Files List for retention and disposition of the official case file. For additional information, see <http://www.faa.gov/about/initiatives/records/>. The official case file must 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. A copy of the clearance records.
- d. A copy 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 A. Paragraph Numbering and Sample Templates

1. Paragraph Numbering. This order requires the use of a decimal paragraph numbering system, as shown in this appendix, unless an exception is requested and approved as described in Appendix B. This appendix contains two examples of the required numbering system, one for a short AC and one for a long AC with chapters.

a. Numbering for Short ACs. You should use the following numbering system for a short AC that is less than 30 pages and does not need to be organized into chapters or require a table of contents:

- 1 **LEVEL 1.**
- 1.1 **Level 2.**
- 1.1.1 Level 3.
 - 1.1.1.1 Level 5.
 - 1.1.1.1.1 Level 6.

Appendix A. Appendix Heading

- A.1 **APPENDIX LEVEL 1.**
- A.1.1 **Appendix Level 2.**
- A.1.1.1 Appendix Level 3.
 - A.1.1.1.1 Appendix Level 4.
 - A.1.1.1.1 Appendix Level 5.

b. Numbering for Long ACs. You should use the following numbering system for a long AC that is 30 pages or more, needs to be organized into chapters, and requires a table of contents:

CHAPTER 1. CHAPTER HEADING

1.1 **Chapter Level 1.**

1.1.1 Chapter Level 2.

1.1.1.1 Chapter Level 3.

1.1.1.1.1 Chapter Level 4.

APPENDIX A. APPENDIX HEADING

A.1 **Appendix Level 1**

A.1.1 Appendix Level 2

A.1.1.1 Appendix Level 3

A.1.1.1.1 Appendix Level 4

2. Sample Templates.

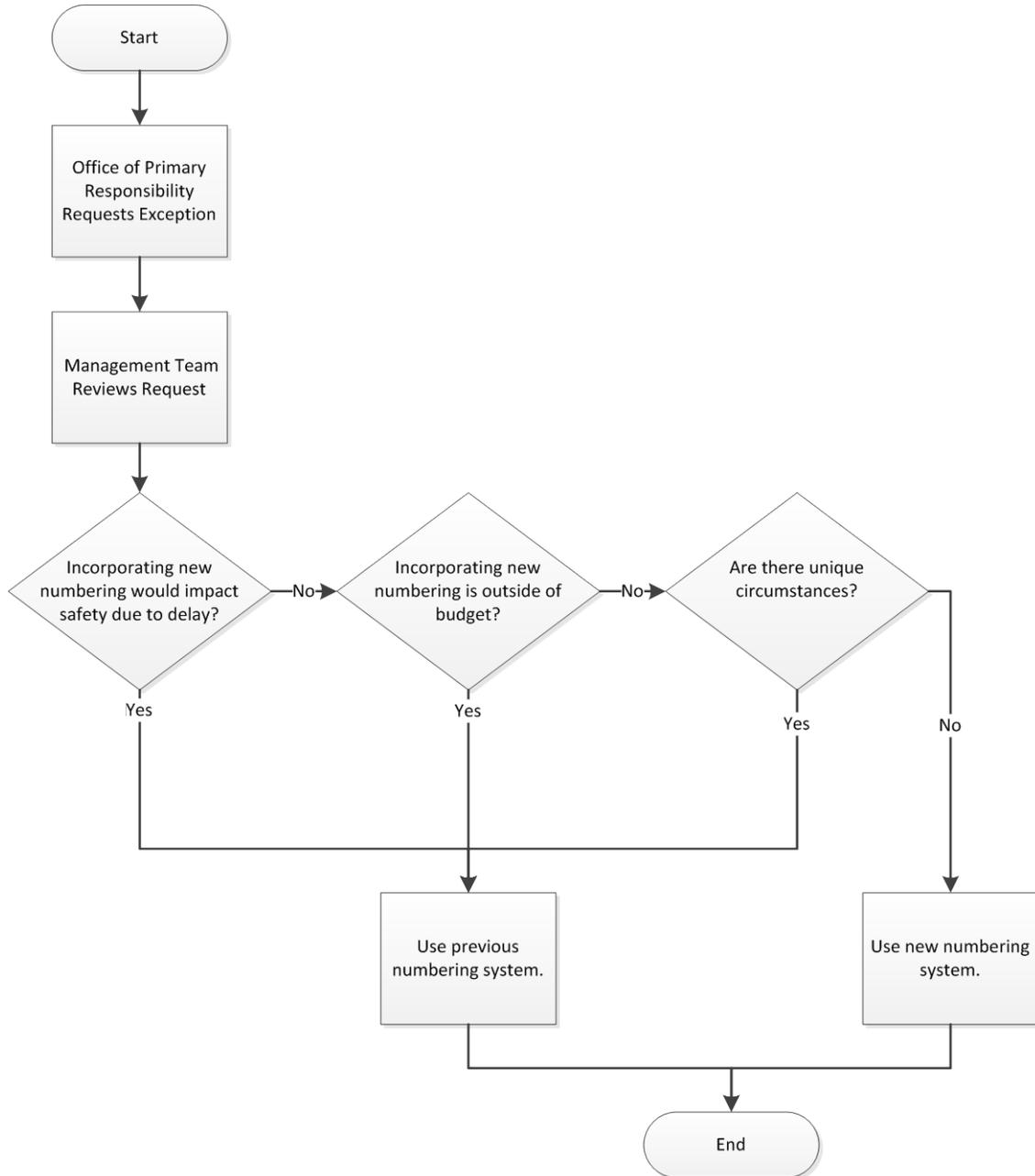
a. Templates of the examples in this appendix, and formatting details, are available at https://my.faa.gov/tools_resources/branding_writing/legal.html. These templates are *optional* and can be modified as needed to fit the content of your AC and the needs of the OPR. The templates demonstrate the required paragraph numbering system and contain styles that you can use to auto-number and format an AC. The styles are intended to address the most common components of most ACs—things like paragraph numbering, line spacing, headings, figures, and appendices.

b. The short and long AC templates are available at https://my.faa.gov/tools_resources/branding_writing/legal.html.

Appendix B. Exception Process for Paragraph Numbering

Offices that are responsible for revising an AC must follow this process for determining whether to update the paragraph numbering to the decimal numbering system in an existing AC, or to retain the existing paragraph numbering.

Figure B-1. Exception Process



Step 1. Office of Primary Responsibility (OPR) Makes a Request.

The OPR requests permission from the management team to retain the existing paragraph numbering. There are three reasons that can be used to justify retaining the existing paragraph numbering.

Note: In some lines of business, the management leadership team may need to coordinate with other groups such as Directives Management Officers.

1. **Safety Impact.** If updating the paragraph numbering system adversely impacts safety then the existing paragraph numbering system should be retained. An example of an adverse impact on safety:

The AC has an error that needs to be corrected quickly. The office estimates that updating the numbering system would cause a large delay to the revisions. An estimate on the difference in time should be provided in request. They should also explain the severity of the safety impact caused by the delay.

2. **Cost.** If updating the paragraph numbering system increases the cost of revising the AC and the increased cost prohibits the office from being able to make the revision. An example of increased costs prohibiting the revision of an AC:

The office has been granted a budget to revise an existing AC. The budget provided was based on previous revisions to the AC. All contractors that bid on the revision to the AC substantially exceed the budgetary allowance. The office cannot revise the AC.

3. **Unique Circumstances.** If there are reasons why the AC must continue to use the existing or a unique paragraph numbering system. An example of a unique circumstance:

The AC adopts standards developed by another agency and uses the paragraph numbering system of that other agency or that is industry standard for the topic of the AC.

Step 2. The Management Team Reviews the Request.

The office management team reviews the request and determines if the justification provided by the OPR demonstrates a justification in accordance with the criteria set above. If the team approves the request, the revision can proceed with the existing numbering system. Otherwise, the OPR uses the new paragraph numbering system.

Appendix C. Advisory Circular Numbering System

1. General Information about Subject Numbers. AC 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 Performance, Policy & Records Management Branch for subjects not shown in this list or if an AC is not directly related to one or more sections of 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

Subchapter	Part	Topic
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	Sport Parachuting
	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
	136	Commercial Air Tours and National Parks Air Tour Management
	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

Subchapter	Part	Topic
	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
	175	Hazardous Materials (HazMat)
180		ADMINISTRATIVE REGULATIONS
	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

Subchapter	Part	Topic
	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 subjects:

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 D. Helpful Writing Principles

In general, you must follow these principles in this appendix when writing ACs.

1. Don't be wordy. Much government writing is too wordy. When you pad your writing with excess words, you make it weaker. Look at the FAA's Plain Language Manual for more guidance. You can reach this manual from https://my.faa.gov/tools_resources/branding_writing/plain_language.html. Here some examples of how we introduce excess words into our writing:

a. Wordy phrases. Here are some common wordy phrases and long words, and shorter, plain alternatives. You can find many more common substitutes at <http://www.plainlanguage.gov/> in the reference library under "simpler words and phrases."

accordingly	so
addressees	you
as a means of	to
on a monthly basis	monthly
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

b. 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 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 . . .

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

Their claim was *totally* unrealistic.

We are *completely* convinced.

It is *definitely* worth explaining.

2. Use vertical lists. It is easy for readers to get lost in run-on sentences. Vertical lists are an ideal way to convey a series of items. They are 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.

3. 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 cannot 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.

4. Avoid using noun strings. Often government writing uses too many noun stacks or clusters—groups of nouns "sandwiched" together. Avoid these confusing constructions by using more prepositions and articles to clarify the relationships among the words. Here is 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 E. 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, Code of Federal Regulations 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.

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, 64 FR 56275, October 19, 1999.

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).

Appendix F. Sample Request for Permission to Use Copyright Material

E X A M P L E

Random House Publishers Inc.
123 Lexington Avenue
New York, 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
AVS-XXX
Telephone (202) 267-XXXX

E X A M P L E

Appendix G. Sample Advisory Circular Feedback Form

If you find an error in this AC, have recommendations for improving it, or have suggestions for new items/subjects to be added, you may let us know by (1) emailing this form to (Enter email address) or (2) faxing it to the attention of the LOB/SO (Enter office names and Fax Number).

Subject: _____

Date: _____

Please check all appropriate line items:

An error (procedural or typographical) has been noted in paragraph _____ on page _____.

Recommend paragraph _____ on page _____ be changed as follows:

In a future change to this AC, please cover the following subject:
(Briefly describe what you want added.)

Other comments:

I would like to discuss the above. Please contact me.

Submitted by: _____

Date: _____