U.S. Department of Transportation
Federal Aviation Administration

Advisory Circular

Subject: AIRPORT CERTIFICATION MANUAL (ACM) & AIRPORT CERTIFICATION SPECIFICATIONS (ACS)

Date: 7/15/88
Initiated by: AAS-310

AC No: 139.201-1
Change:

1. PURPOSE. This advisory circular (AC) provides methods acceptable to the Administrator for showing compliance with the Airport Certification Manual (ACM) and Airport Certification Specifications (ACS) requirements contained in Part 139 of the Federal Aviation Regulations (FAR). Consideration will be given to other methods of compliance which the applicant may elect to present.

2. FOCUS. This material is intended for operators of airports that are required to have an Airport Operating Certificate (AOC) or a Limited Airport Operating Certificate (LAOC) to serve scheduled or unscheduled operations of air carriers using aircraft with over 30 passenger seats.

3. CANCELLATION. This AC cancels:

a. AC 150/5280-1, Airport Operations Manual dated 6/16/72.

b. AC 139.12-1, Airport Operations Specifications dated 2/03/75.

4. RELATED FAR SECTIONS. This AC relates specifically to Subpart C of Part 139, which is comprised of:

a. Section 139.201. Airport operating certificate: Airport Certification Manual.

b. Section 139.203. Preparation of Airport Certification Manual.

c. Section 139.205. Contents of Airport Certification Manual.

d. Section 139.207. Maintenance of Airport Certification Manual.

e. Section 139.209. Limited Airport Operating Certificate: Airport Certification Specifications.

f. Section 139.211. Preparation of Airport Certification Specifications.

g. Section 139.213. Contents of Airport Certification Specifications.

h. Section 139.215. Maintenance of Airport Certification Specifications.

i. Section 139.217. Amendment of Airport Certification Manual or Airport Certification Specifications.

5. RELATED READING MATERIAL. The following are Federal Aviation Administration (FAA) AC's which will be particularly helpful in preparing required portions of the ACM/ACS. These AC's have been developed with specific elements of Part 139, Subpart D, in mind. Additional technical information which can be useful in the development of airport operations and maintenance systems and procedures for the ACM/ACS may be found in a further listing of AC's found in Appendix 3.

a. AC 150/5200-30, Airport Winter Safety and Operations.

b. AC 150/5200-==, Airport Emergency Plan (AEP) (proposed).

c. AC 150/5200-18B, Airport Safety Self-Inspection.

d. AC 150/5200-==, Airport Wildlife Hazard Management (proposed).

e. AC 150/5200-28, Notices To Airmen (NOTAMS) For Airport Operators.

f. AC 150/5370-2C, Operational Safety on Airports DuringConstruction.

6. BACKGROUND. A substantially revised FAR Part 139 became effective on January 1, 1988. The requirement for an Airport Operations Manual (or Specifications) was changed to an Airport Cer-

tification Manual (or Specifications), with content and applicability limited to that material required for certification. Some requirements for the ACM/ACS were carried over intact, but many underwent change and a few were deleted. This circular addresses the requirements for the revision of existing, or development of new, ACM/ACS.

7. **USE OF THIS CIRCULAR.**

a. This AC discusses the requirements of a portion of the Federal Aviation Regulations. In handling this subject matter it would be awkward, if not impossible, to avoid imperatives such as "must" or "require" - terms not normally welcome in an AC. Where imperatives are used herein it is because they are associated with mandatory provisions of the Regulation itself.

b. Where the term Section followed by a number is used, such as "Section 139.317", it is a reference to a specific provision of the Regulation.

c. The number in brackets following a paragraph or statement such as "[*.107(a)(3)*]" is a cross reference to the applicable Section of Part 139. The "139" is omitted to save space.

d. The FOCUS of this AC is the airport operator - so that person is the "you" and "your" we are speaking to in these pages.

8. **AVAILABILITY OF AUTOMATED ACM/ACS.** An automated ACM/ACS version of this AC provides the airport operator and other users an automated means for developing and modifying the ACM/ACS. See Appendix 5 for instructions on how to order.

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CONTENTS

CHAPTER 1. FUNCTION AND FORM

CHAPTER 2. ACM/ACS OVERVIEW

CHAPTER 3. ACM/ACS REVIEW AND REVISION

CHAPTER 4. TECHNICAL RESOURCES & LIMITATIONS

APPENDICES

CHAPTER 1. FUNCTION AND FORM

101. FUNCTION AND AUTHORITY OF THE ACM/ACS. If there is a single most important point to remember about the ACM/ACS it is that it functions as an extension of the Regulation. Because Part 139 is couched in terms broad enough for all airports covered by the Regulation, it cannot present the degree of specificity appropriate to each individual airport. The ACM/ACS provides the bridge between the requirements of the Regulation and their specific application for each airport, taking into account the airport's size, activity, and configuration. The language contained in Section 139.101(a),(b) establishes the enforceability of the ACM/ACS on a par with the Regulation itself. This brings us to two cardinal principles to be observed in the development of each ACM/ACS.

a. Be Comprehensive. Include in the ACM/ACS all of the Part 139 requirements that apply to your airport. It is intended that the ACM/ACS provide, to personnel concerned with operating the airport, the information needed to comply with the Regulation.

b. Be Conservative. Refrain from elaboration and detail beyond that necessary to show how regulatory compliance is to be achieved at your airport. Be watchful of the line between: essential statements of responsibility, authority, and procedure; and excessive levels of detail which can restrict flexibility to meet unforeseen circumstances, or even create unnecessary commitments under the Regulation.

102. PREPARATION. The Regulation requires the ACM/ACS to have, in addition to the technical content, certain physical features of approval, organization, and dissemination. These are discussed in the following paragraphs. You may prepare your ACM/ACS yourself or have someone else do it. As you continue into this AC you will see that a fundamental knowledge of all aspects of the airport's operation will be required to produce a satisfactory ACM/ACS. Accurate, concise, statements which speak directly to Part 139 requirements are preferable to glossy essays. Remember that no matter who prepares it, it becomes your document when it is approved by the FAA.

a. Approval. There are two levels of approval that are significant to the Regulation. There is the approval that you will give to the ACM/ACS before it is submitted to the FAA, and there is the approval given by the FAA which effectively establishes the document as an extension of Part 139 for your airport. [*.107(a)(3);.107(b)(3)*]

(1) Airport Approval. The Regulation requires that the ACM/ACS be signed by the Airport Operator. This means an official who has the authority to implement and enforce the provisions of the ACM/ACS whether or not "Airport Operator" is the actual title. This approval can be accomplished on a signature page (or title page if there is a cosmetic cover over it) at the front of the ACM/ACS. The approval should identify the airport, the official, the document, and the date. When page revisions are sent to the FAA for approval they should be transmitted formally by the same level of airport authority that is authorized to approve the ACM/ACS as a whole. The FAA assumes that the approval is by the position, not the individual, so that the ACM/ACS continues unbroken in force if a change of airport management personnel takes place. If the new incumbent has reservations about any existing provision of the ACM/ACS, an early review is in order before its enforcement becomes an issue. [*.203(a)(1);.211(a)(1)*]

(2) FAA Approval. The FAA will require that each page show the date of approval, whether as part of the original document or as a later revision or addition. This requirement includes any other substantive item embodied in the ACM/ACS such as a grid map, table of organization, etc. It is a good idea to select a location on the page for the date and be consistent throughout – it is easier to catch mistakes or omissions in a standardized presentation. One method is a stamp the FAA will place on each page which combines an approval mark with the date. Another method could be to agree with the FAA on the date beforehand and have it printed on the page that the FAA will mark with approval. The point is that the ACM/ACS becomes, upon approval, a document with considerable legal significance. Whatever methods are used upon it, it is imperative that all parts of it

can be identified with an authority and a time frame. [*.203(a)(3);.211(a)(3)*]

b. ORGANIZATION. There are three aspects of ACM/ACS organization that you will want to consider. One is concerned with the physical dimensions and layout of the document. Another is the mechanics of the assembly of the document. The third is the combination and sequencing of the substantive material you are placing into the document.

(1) Physical Layout - Design. Since the ACM/ACS is to be a working document that reflects current airport realities, it should be easy to maintain and revise. A systematic page identification system is highly recommended. Note that in this AC each page carries enough identification to easily determine the document it belongs to, its exact location in the document, and its date of approval. The same system is used in FAA internal directives which have, in authority and function, a lot in common with your ACM/ACS. You may wish to devise a comparable system. The Page Revision Log required for each ACM/ACS functions as an inventory of the current pages. This can simply be a sheet with columns of page numbers with space for a date alongside. This is a very useful device to verify the currency of a page in question without leafing through the entire document, and as a checklist for maintenance of the ACM/ACS tracking pages for revision, inserting changes, etc. [*.203(a)(3);.211(a)(3)*]

(2) Assembly. The Regulation requires that the ACM/ACS be typewritten (this includes other printing methods which produce a comparable result) but it is not as specific on the form or material. A loose leaf, standard size, black-and-white page assembly in a three ring binder is suggested (consider the potential problems with the reproduction, insertion, filing, and mailing of odd-size or multi-color media, and comb or spiral bindings). Also, one side printing is recommended. While it does add bulk, it makes revision easier and lends itself to under-the-desk-glass or bulletin board display of pages extracted for ready reference. [*.203(a)(1),(2);.211(a)(1),(2)*]

(3) Organization of Content. Your ACM's use as a reference guide by airport personnel should be encouraged. With this in mind, consider the functional assignments within your airport organization. This may influence the way you want to sectionalize the instructions in your ACM/ACS so that it lends itself to parceling out discrete portions to your personnel (by shops, crafts groups, etc) for their guidance. Generally, the subject sequencing of the Regulation itself provides a satisfactory outline for the ACM/ACS. This is particularly true for the review and updating processes which flow more easily with the order of the elements as they are found in the Regulation. [*.203(a)(4);.211(a)(4)*]

c. Dissemination. The Regulation requires that you furnish applicable portions of your ACM/ACS to the airport personnel who are responsible for their implementation. It is not intended that the portion of the ACM/ACS provide the total instructions on how to do a job. If the ACM/ACS is well prepared, however, it will provide information on how the job must be performed to maintain compliance with the Regulation. [*.207(c);.215(c)*]

CHAPTER 2. ACM/ACS OVERVIEW

201. CONTENTS FOR COMPLIANCE. As a general rule the ACM/ACS must contain operating procedures, equipment descriptions, responsibility assignments, and other information needed by airport personnel to comply with the Regulation. The two kinds of material which require compliance are: provisions of Subpart D; and any other limitations which are imposed by the FAA. [*.205(a);.213(a)*]

a. Provisions of Subpart D. Subpart D of the Regulation is the main body of requirements that an airport must meet to obtain and hold a Part 139 certificate. The ACM/ACS must address all of the required provisions of Subpart D, which is comprised of Sections 139.301 through 139.343. Note that not all of the Subpart D provisions are required for the ACS. Those that apply to the ACS are listed in Section 139.213(a). Subpart D provisions with explanations are listed in Appendices 1 and 2 for the ACM and ACS, respectively.

b. Limitations. In addition to the provisions of Subpart D, any limitations placed on the airport by the FAA must be addressed in the ACM/ACS. These are not frequently encountered. In most cases they have been included to deal with unusual operational characteristics of an airport, such as limiting air carrier operations to Short Takeoff and Landing (STOL) aircraft.

202. SPECIAL ELEMENTS OF COMPLIANCE. The material discussed in paragraph 201 for procedures, equipment, responsibilities, etc., will vary from airport to airport. The Regulation also lists certain elements that must be in all ACM/ACS for compliance. These mandatory elements can be regarded as the minimum detail required. Most of the Subpart D provisions will need more explanation than these elements specify. Most of the mandatory elements can conveniently fit into the Subpart D provisions as they come up. A few may lend themselves better to a separate figure (table, chart, etc) which can then be referenced in the discussion of the individual Subpart D provisions. For example, it may be simpler to draw up an organization chart and a table of the lines of succession and use them as references rather than repeat the information many times throughout the ACM/ACS.

a. Special Elements of Compliance for the ACM. This listing is in Section 139.205(b). Note that some of the elements are listed "as required by Section ...." That means that the element is necessary only if Section ... requires it. For example, if airport conditions do not trigger a requirement for a Wildlife Hazard Management Plan according to Section 139.337, none is needed for the ACM. There should, however, be a notation in the ACM/ACS for each of those special elements that is not included so that a complete accounting of all of the mandatory requirements is readily visible.

b. Special Elements of Compliance for the ACS. This listing is in Section 139.213(b). There are 16 of these compared to the 26 listed for the ACM. Note that #16 is worded to include any other provision of Subpart D that may be deemed necessary. This is because less than the entire Subpart D is normally specified for compliance by airports with ACS. The other remarks in subparagraph b above apply here as well.

203. GUIDELINES FOR SPECIFICITY. The central theme and purpose of the ACM/ACS is embodied in the language of Sections 139.205(a) and 139.213(a). It is to be a useful working document to assist airport personnel in maintaining compliance with the Regulation. This is where the two cardinal principles, mentioned in paragraph 101, come into play. The ideal ACM/ACS provides enough direction to achieve compliance with the Regulation but stops short of smothering detail. Approach the subject as if you, the airport operator, are leaving instructions for someone to carry out while you are absent. When you are writing your instructions you would be concerned with WHO is going to perform the tasks, WHAT the tasks consist of, any particular advice on HOW they are to be performed, and the timetable for performance to ensure that things happen WHEN you want them to. These points are discussed below.

a. Who. There are two aspects of WHO that deserve discussion. There is the WHO that normally operates away from your presence on a relatively autonomous basis – not outside your authority but at some distance, either physically or functionally. We shall call this WHO "Independent" for convenience. The key element here is that this WHO may have to make decisions and take actions to deal with abruptly changing situations without first checking with you, even if you are somewhere on the airport. The other WHO – the "Substitute" – is one who must step in and perform certain tasks for compliance with the Regulation when the usual chain of responsibility and authority has been temporarily interrupted. This WHO is

essentially a substitute in a function and may or may not be completely familiar with the normal routine. The ACM/ACS should provide sufficient guidance for performing the function and, of course, instructions for calling for help if problems arise.

(1) **The Independent WHO.** As stated earlier, this WHO is probably not totally independent in authority or action - the key point is that certain significant actions may have to be taken without the opportunity for a routine request and approval process occurring between you. Therefore you, as airport operator, want to feel confident that this WHO knows: what is required from a regulatory standpoint; and can apply this knowledge to new situations as they arise, as well as to the daily routine. This can be accomplished with firm, clear instructions in the ACM/ACS. The Airport Rescue and Firefighting (ARFF) function provides an illustration. Events can occur at the fire station that require the urgent initiation of actions which could have consequences somewhere else, upon someone else. For example if a piece of fire equipment becomes inoperative, some management action may have to be taken with respect to limiting air carrier operations, or at least initiating notification to air carrier users of the airport. If an emergency call is received a decision is often required about initiating all or part of the airport emergency plan. Do the ARFF personnel who are faced with these choices have clear, concise, and available information that will put the action on the right track? And, of course, it must also be clear which WHO is to be the one responsible for carrying out the instructions.

(2) **The Substitute WHO.** Keep in mind which WHO may have to step forward to accomplish tasks if you or your regularly designated representative is absent. You would probably want to select in advance the individual most qualified to do the job. Let's use the airport self-inspection program as an example. Assuming that the individual is knowledgeable about airport operations, if not the fine points of Part 139, you would probably not have to start your instructions totally from scratch. However, the individual may not normally perform (or directly oversee) that particular function. Therefore, the ACM/ACS should be specific about critical aspects of the job, such as the course over the airport to be driven. Then again, since you are not there, there may be yet another person doing that chore, instead of the WHO you had planned for. If your electrician who usually checks the field lighting is out that day, will the substitute know what to look for? Will the substitute know where the switches are to turn on the lights in the first place? In other words, an instruction in the ACM/ACS that says "Field lighting will be checked for compliance with applicable requirements" simply won't do it.

b. What and How. The WHAT and HOW of ACM/ACS instructions refers to the tasks assigned to various individuals or departments who are charged with achieving compliance with the Regulation. Unless all of the personnel assigned to the task are fully familiar with the regulatory requirement, the ACM/ACS should be structured to produce the desired result by providing guidance appropriate to the training and experience of the personnel. For example, it would be of questionable value to write instructions in the ACM/ACS that the grounds maintenance crew is to "Maintain all safety areas in accordance with the Regulation" unless the crew knows what Part 139 says about the surface of safety areas, the dates the various safety areas were established, and the FAA dimensional standards that apply to each safety area. A better approach would be to identify the physical boundaries of the safety areas and state graphically what sort of surface conditions are to be maintained.

c. When. The best instructions will not produce satisfactory results if they are not put into action. Is the instruction "The ARFF unit will inspect the fueling areas each day" specific enough? Is there going to be a lapse in accomplishment because the first shift thought the second was to do it, and the second shift thought the first one surely had done it? The WHEN may also be triggered by circumstances, such as a certain depth of snow accumulation or a specific temperature drop. Can the individual who must take some action read a clear and precise WHEN message in the ACM/ACS, or is there some nebulous statement like "When weather conditions dictate"? And while you are at it, don't forget that someone has to measure the snow or read the temperature. A WHO question can arise here as well as a WHAT and HOW if certain procedures or equipment must be specified for use. In fact, it should be obvious now that WHO, WHAT, HOW, and WHEN, are usually going to be closely intertwined, and that most instructions will have to satisfy the needs of them all.

204. EXEMPTIONS. An exemption, if you have one, occupies its own niche in the compliance picture for your airport. It is important to understand what an exemption is and what is does, and how you may fit it into your ACM/ACS.

a. An Exemption Described. When you ask for an exemption you find that there are a host of procedural requirements to be met, and it doesn't seem to make any difference if the request is for a "little" or "big" exemption. The reason is that a request for an exemption is a Rule Making Action, and filing one triggers its own chain of events in accordance with Part 11 if the Federal Aviation Regulations. An exemption from a provision of Part 139 is not a Deviation, or a relaxation of Part 139. A exemption issued to you effectively changes, for its duration, the manner in which you comply with the terms of your Part 139 Airport Operating Certificate. That, in part, explains why the exemption can only be approved at the same level of authority that issued your certificate. The fact that a Rule Making Action is generated also explains why an exemption request normally requires action by the legal staff of the FAA. [*.111*]

b. The Exemption in Your ACM/ACS. Since each exemption applies to a specific section of the Regulation and affects the way in which compliance with that section is accomplished, it makes sense to include a copy of the exemption in the part of the ACM/ACS that deals with that subject. Then, when that provision of the Regulation as it applies to your airport is being examined, the whole picture is there in one place. At the same time it is useful to have a list of all current exemptions for your airport at one point to provide reference without having to page through the entire ACM/ACS. It is recommended that such a list, with the subject and Part 139 reference shown, be placed in your ACM/ACS at some point, or added as an appendix. Copies of the exemptions can then be inserted at the appropriate places in the ACM/ACS where the subjects are covered. [*.205(b)(2)*]

205. LIMITATIONS. Limitations are infrequently imposed oncertificated airports. When they are, their impact is usually over a range of regulatory provisions. Any limitations imposed on your airport by the FAA must be copied in your ACM/ACS. Because of the primacy of a limitation it should have a section devoted to it in the earliest part of your ACM/ACS. It may also be useful to reference it in the discussions of the related provisions of the Regulation. [*.205(b)(3)*]

206. DEVIATIONS. It is often found that the Deviation is a misunderstood resident in the Regulation. It is not associated with any particular section of Subpart D, but in fact could become a factor in the performance of any one of them. A foolproof definition is difficult, but some examples may help. [*.113*]

a. Examples of Deviations. These examples assume that the proper notifications to the FAA are accomplished.

(1) Giving permission to an air carrier aircraft with an in-flight emergency to land at your airport, even though the size of the aircraft is beyond your ARFF Index, is a Deviation. There is no violation of Part 139.

(2) You have removed your only air carrier runway from service over a non-traffic period to repair the pavement. An air carrier contacts you and states that a fuel emergency makes a landing at your airport imperative. Although the pavement does not comply with the requirements of your ACM/ACS, you pull your equipment off the runway and permit the landing. No violation.

(3) You send your ARFF capability off the airport to assist in a life threatening fire on a passenger train. You permit normal air carrier operations during that period. That is a violation, not a Deviation. The point is, the emergency must be associated with your responsibilities under the Regulation that you are deviating from.

b. Coverage in the ACM/ACS. A Deviation is a serious business and should receive your highest management attention. Your ACM/ACS should reflect how you want the notification of a possible Deviation to flow. Considering the possibility of a Part 139 violation in case of a mistake, you will want to make this item a highly visible one.

CHAPTER 3. ACM/ACS REVIEW AND REVISION

301. REVIEW REQUIREMENTS. The Regulation requires the ACM/ACS to be kept current at all times. This can be an awesome workload or a relatively minor routine chore. The difference is largely in how you prepare for the review and revision process. [*.207(a);.215(a)*]

a. Lay the Groundwork. Add the review and revision process to the list of things to be kept in mind when you design your ACM/ACS. Plan the document so that it lends itself to parceling out self- contained segments for review by persons knowledgable in that area. If that sounds familiar, it is because we said just about the same thing in paragraph 102(b)(3) concerning the parceling out of portions of the ACM/ACS to airport personnel for their operational guidance. If you have done that, you have already begun the groundwork for the review process. Next you will want to identify who is to accomplish the review of the various parts of the ACM/ACS and when they are to do it. Set a schedule and keep to it. This cannot be overemphasized. You may wish to schedule portions of the ACM/ACS on a staggered basis so that there is not an enormous workload accumulated at one time.

b. Establish the Process. Once you have decided how, by whom, and when the review process is going to happen, write it down where all those who have tasks to perform can be reminded of them. And the best place to write it down is in the ACM/ACS itself. Use the WHO, WHAT and HOW, and WHEN guidelines. You will also want to establish procedures for injecting changes or additions into the ACM/ACS in between regularly scheduled reviews. You will probably be in the best position to see most of those situations develop, and can initiate a timely amendment to the ACM/ACS.

302. REVISION AND FOLLOWUP. The Regulation considers a timely amendment to be one which was filed with the FAA 30 days prior to the effective date. You should contact your credentialed FAA certification inspector if you will not be able to make that schedule. The inspector will work with you to accomplish the change as expeditiously as possible to keep your airport in compliance with the Regulation. It is a good idea, especially in the case of lengthy or complicated changes, to provide your inspector with a draft for early review and discussion. When the revision to your ACM/ACS is effective, you should place special management emphasis on any area of the airport operation which was affected. Usually, a change in a working procedure or other requirement is easier to implement if those who must make the changes had a role in the formulation of the changes. [*.217(a),(b)*]

CHAPTER 4. TECHNICAL RESOURCES & LIMITATIONS

401. THE REGULATION AND ADVISORY CIRCULARS. The FAA publishes AC's on a broad range of subjects. This paragraph is intended to help place them in their proper perspective relative to FAR Part 139.

a. General. AC's are an agency medium for publishing information of an advisory nature primarily for the benefit of the aviation community. In the Airports subject areas AC's are largely concerned with technical specifications and procedures relating to the design, maintenance, and operation of civil airports. They are to do this in nonregulatory language and format.

b. FAR Guidance Material. Within the AC system there is provision for special purpose AC's (this is one) to assist in the implementation of Federal Aviation Regulations. These AC's are identified by the title "FAR GUIDANCE MATERIAL" and their specific purpose related to regulations as defined by the following quote from the AC handbook. "Advisory circulars may be issued to set forth methods, procedures, and practices acceptable to the Administrator for complying with the Federal Aviation Regulations."

c. Using the Circulars. Use of applicable AC's in the preparation of your ACM/ACS is encouraged for two reasons. First, they contain useful technical information which has general acceptance in aviation circles - in most cases the material has been developed by the FAA with participation by various members of the aviation community. Second, the adoption of methods and procedures from applicable AC's is usually tantamount to a "pre-approval." As was stated in paragraph 1, consideration will be given to other (than advisory circular) methods of compliance that the applicant may elect to present. In that case the applicant will have to demonstrate the acceptability of the alternate method to the FAA. There may be exceptions to this general rule, where a regulatory provision or a related FAA policy statement specifies a certain method or procedure. In such cases the regulation or policy will be controlling.

d. Caveat for AC Use. Remember a word of caution. Most of the technical circulars were not developed primarily for regulatory guidance. They frequently contain additional material which, while technically valid, may not be fully applicable for the regulatory purpose. For example, the provisions of Part 139 were developed in the context of the minimum requirement to be levied upon the public to achieve a certain level of safety. AC's frequently espouse an optimum or state-of-the-art approach which may identify methods, materials, and results beyond the requirements of the Regulation. If in doubt about the applicability of technical material to Part 139 concerns, contact your credentialed FAA airport certification inspector.

e. Finding the Information. All FAA AC's are listed in the AC Checklist which is published periodically. The Checklist also explains how to obtain circulars, and whether they are free or are for sale. You may request the Checklist by writing to:

Utilization and Storage Section, M-443.2
Department of Transportation
Washington, DC 20590

402. AIRPORT AUTHORITY LIMITS. A few of the provisions of Subpart D of the Regulation deal with matters which can be outside of the authority of most airport operators. Examples are obstruction lights outside airport boundaries, and medical assistance and transportation from community sources. Note the qualifying language used in those instances, such as "to the extent practicable" or "which agrees to provide." The Regulation does not demand actions beyond the authority of the airport operator. It does require, in certain instances such as those mentioned above, that an attempt me made to achieve the desired result, and even negative results must be documented in the ACM/ACS.

APPENDIX 1—CONTENT OF THE ACM

1. PURPOSE OF THIS LISTING. All of the provisions of Subpart D of the Regulation apply to airports with a full certificate. Those airports prepare and maintain an ACM which reflects the manner in which the airport complies with the requirements of Subpart D. All of the Subpart D section headings are listed below with amplifying remarks or examples. The order of presentation follows the sequence found in the Regulation. The Regulation also requires the ACM to show how the airport complies with any limitations placed upon the airport by the FAA. Such limitations are rare and, in any case, are based on unique circumstances at a particular airport. Therefore, this Appendix does not address compliance with limitations. [.205(a)]

2. ABOUT THIS LISTING. Except for the requirements of a purely administrative nature, all of the items should be written to satisfy the questions WHO, WHAT, HOW, and WHEN as discussed in paragraph 203 of this AC. There are also the Special Elements of Compliance to be considered – refer to paragraph 202. The discussions and examples presented in this listing cannot cover all possible airport situations. Omission of some aspect of Subpart D does not mean it is not required or is of lesser importance. Any questions you may have concerning the application of these discussions or examples to your own airport should be resolved with your certification inspector.

3. SECTIONS OF SUBPART D–OPERATIONS.

SECTION 139.301 Inspection Authority. This should be mentioned in your ACM so that whoever is in charge of the airport in your absence is aware that a credentialed FAA airport certification inspector has authority to inspect for compliance with the Regulation.

SECTION 139.303 Personnel. Except for those areas where the Regulation requires specific training or performance documentation, the FAA normally assumes that a function well performed indicates sufficient qualified personnel. Remember that this requirement includes airport management and supervisory personnel as well. In this regard a chart or table showing the lines of succession of airport operational responsibility would be helpful to demonstrate accountability under this Section, and would also satisfy one of the special elements of compliance. [*.205(b)(1)*]

SECTION 139.305 Paved Areas. This and other extensive maintenance-type requirements will probably have similar patterns in your ACM. Refer to paragraph 203 of this AC and cover those areas of WHO, WHAT, HOW, and WHEN. (See Appendix 4 for an example of what this portion of an ACM might look like.) The Regulation contains several specific requirements for paved areas that are available for air carrier use. The requirements are stated in results–oriented terms and are not so lengthy that they could not be handily repeated in the ACM. This not only meets the requirement of Section 139.205(a) for including procedures, etc., needed by your personnel, it also serves as a reminder directed specifically toward that maintenance activity. This portion of your ACM may also be a good location for the description of movement areas that are available for air carrier use. Note that this description does not include other paved or unpaved areas on your airport (ramps, parking areas, etc) which, while usable by air carriers, do not fall within the definition of movement area. You should be aware that the movement area definition found in the Airmen's Information Manual, and various Air Traffic Control manuals, includes the proviso that on a towered airport an air traffic clearance is required to enter a movement area. This latter definition will be the one used in any letters–of–agreement that may be needed between you and the Airport Traffic Control Tower (ATCT) concerning movement areas. If such agreements result in removal of certain pavement segments from the controlled movement areas, that should be described in the ACM. [*.205(b)(7),(9)*]

SECTION 139.307 Unpaved Areas. This section is infrequently found in an ACM outside of Alaska. The pattern of the example in Appendix 4, for paved areas, is applicable for this purpose although an airport with unpaved air carrier surfaces is not likely to have an elaborate maintenance establishment. There may, however, be some fairly exotic maintenance procedures involved, such as repairing

ice runways or determining the point of abandonment of a frozen surface at spring thaw. In the absence of an airport maintenance guide, or other convenient place to record these procedures, use the ACM. [*.205(b)(10)*]

SECTION 139.309 Safety Areas. It is important that the location and obligatory dimensions be clearly and accurately described. The application of the Regulation hinges, in many respects, on the precise delineation of those areas. The dimensions of a safety area on your airport frame the obligations you have with respect to its maintenance. The description of a safety area is only complete if the dimensional data is accompanied by the date those dimensions were established in accordance with the Regulation. The safety areas (dimensions) that existed on December 31, 1987 form the base lines of your maintenance obligations. If construction, reconstruction, or significant expansion of the runway or taxiway began after that date, the associated safety area dimensions are required to be in conformance with current FAA standards. Here again the use of a map or diagram is helpful, especially when describing a runway safety area that has different dimensions for each end. In this regard a graphic supplement to the narrative description is invaluable. If you have a basic, uncluttered grid map as a starting point, it may be of use for this purpose. Because of the wide usage this sort of figure frequently receives, it is an appropriate candidate for an appendix. [*.205(b)(7)*]

SECTION 139.311 Marking and Lighting. The pattern of the example in Appendix 4 for paved area maintenance provides a good base for your instructions here. Generally speaking, the maintenance task is to fix or replace the broken or missing item in kind. However there are a few additional points to be considered. If the light is burned out it should be a simple matter to replace the bulb. But if the light has been smashed out of recognizable existence or stolen, you need to be sure that whoever replaces it knows what kind of fixture to use. Well written instructions supplemented by an airport diagram are valuable insurance against slip-ups like an edge light in the last 2000' of an instrument runway without a yellow side. You should also include clear instructions on just how many, and in what sequence, lights may be out before the system is considered inoperative. Guidance on this is in AC 150/5340-26, Maintenance of Visual Aid Facilities, current edition. [*.205(b)(12)*]

This is an appropriate place to describe your runway and taxiway system of identification. In addition to the system description it is recommended that a runway (RY) and taxiway (TWY) diagram be provided, especially if your identification system varies from the norm or is otherwise complicated. You should also know who is responsible for the approach lights at your airport and include the means of contacting them. [*.205(b)(5),(12)*]

SECTION 139.313 Snow and Ice Control. The AC on airport winter safety and operations contains technical information that will help you plan your own snow and ice control plan, which is required by the Regulation. Items that you might want to pay particular attention to in this area are: providing specific instructions on the notification of air carrier users of your airport of landing area conditions; and the authority to initiate snow removal operations, especially when procedures require calling in municipal or contract assistance. Of course, if you don't regularly experience snow and icing conditions, a simple statement to that effect may be all that is required. If you think that there is a chance of snow or ice, however, it is better to place some guidance in the ACM even if it is little more than to close the airport and notify the users. [*.205(b)(13)*]

SECTION 139.315 Aircraft Rescue and Firefighting: Index Determination. State what your airport's index is and explain what it means in terms of aircraft length. It would be a good idea to name the longest aircraft that the index can serve because sooner or later the question is bound to arise. It is not unknown for air carrier personnel, planning an operation into certificated airports, to be unaware of the ARFF index requirements of their aircraft. If your airport has an Index higher than A it would be well to state the longest air carrier aircraft that could use your airport if one or more of your ARFF vehicles was removed from service. This will be a useful piece of information to have readily available if you need to notify your air carrier station agents in a hurry.

SECTION 139.317 Aircraft Rescue and Firefighting: Equipment and Agents. List the equipment you have and the type and amount of agent they hold. Don't neglect the portable extinguishers they carry because that can have a bearing on what index you can maintain if there is an equipment outage. Make sure that the Underwriters Laboratory rating (such as BC 120) is known because it may have a bearing on maintaining your Index if your basic Index A vehicle goes out of service. [*.205(b)(14)*]

SECTION 139.319 Aircraft Rescue and Firefighting: Operational Requirements. This is one of the

most critical areas to write into your ACM. The basic ingredients are much the same - the familiar WHO, WHAT, HOW, and WHEN still highlight the requirements. This is an area where you probably have the Independent WHO to deal with, (see paragraph 203) and a few other problems unique to the ARFF situation.

Do you have full control over the operation of the ARFF unit that provides your service? How much latitude does it have before it must request your approval? Can the vehicles be dispatched off airport without your permission? Are you reliably informed whenever an element of your ARFF becomes inoperative or unavailable for any reason? These are basic questions you should have answers to before you can write a useful ARFF section for your ACM. If you have full and firm control your task is a lot easier. You will want to allow your ARFF as much flexibility as possible within the scope of their mission, but you will also want to build into your ACM procedures a fast and reliable information system so that you know when you are at a decision point concerning air carrier operations. If you do not have full authority over your ARFF as sometimes happens when the unit is controlled by a municipal fire department, your information needs are even more critical to your compliance with Part 139. In that case you will want to insist on immediate reports on the disposition of the equipment - if this takes a formal letter of agreement with the fire department, that should be copied in the ACM.

The tower on your airport can be of great assistance to your ARFF operation but they are permitted to go only so far by FAA policy and directive. You should make it high on your order of business to discuss, with the ATCT manager and the crew, the role of the ATCT in emergency operations and the particulars of its interface with the ARFF unit and the airport management. Then, write this into your ACM. Include in your instructions the limits beyond which the ATCT is not able to operate, to avoid misunderstandings and lost motion during an actual ARFF action. It is sometimes mutually beneficial to enter into a letter of agreement with the ATCT to cover certain activities peculiar to your airport. If you do so, copy that agreement in your ACM, either in this section or as an appendix with appropriate extracts or references in this section.

The Regulation permits a temporary reduction in ARFF presence during periods of shorter air carrier aircraft activity. Certain conditions must be met, however, some of which involve language in your ACM. The individual or position with the authority to implement the reduction must be identified in the ACM along with the procedures to be followed. There must also be a system in place for the recall of the full required complement of ARFF personnel and equipment, and this is a mandatory item for the ACM. There is a requirement for the notification of air carrier users of your airport prior to the implementation of this procedure, and the particulars of that action, with appropriate responsibilities and authorities must be detailed in the ACM.

Place instructions for even the simplest communications systems in your ACM. If your ARFF unit must deal with additional channels for a municipal dispatch facility, the opportunities for communications errors increases dramatically, especially in the heat of an emergency.

It is suggested that a grid map of your airport be organized as one of the appendices to the ACM. When designing this map, check with the emergency organizations in your area - sometimes a county disaster management unit, or similar body, will already have a grid map in use that includes your geographic area. If so, you may wish to adopt their grid system or, at least, consider the ramifications of having separate systems. You will probably also want to include the map as part of your Airport Emergency Plan (AEP), and it can be very useful in other applications as well. A well drawn basic map which is not overburdened with detail can provide the common basis for the grid map and for depicting other elements required for the ACM. Runway and taxiway designations, location of obstructions to be lighted, and identification of safety areas can often be developed from the same basic map. Note that a grid map, as such, is not required by the Regulation if another means of identifying significant terrain features, satisfactory to the FAA, is employed for emergency operations.

The inoperative vehicle potential needs careful attention in your ACM. To begin with there should be an explanation of what "inoperative" means in the context of the Regulation. That explanation in the Regulation is not to be stretched. Inoperative means that the vehicle is unable to perform all of the functions required of it by the Regulation. It does not mean that the vehicle has been sent off-airport and is therefore not available for airport emergencies. There should be clear instructions for the procedures to be followed, and who is to accomplish them, when a required piece of ARFF equipment becomes inoperative. This is one of those areas where you, as airport operator, must have prompt and accurate knowledge of the status

of your ARFF readiness so that you are able to discharge your other responsibilities for air carrier notification and limitations.

One aspect of your response posture that is sometimes misunderstood, and which should be covered in your ACM, is the requirement for coverage during "air carrier operations." This term is explained in Section 139.3 Definitions. Your instructions in the ACM should explain that each air carrier operation is treated separately when figuring the response period. This means that your ARFF unit must be instructed to maintain a response posture for at least the half-hour period bracketing the operation - 15 minutes before to 15 minutes after. If your ARFF is a 24 hour 365 day establishment, you probably have less potential for problems of coordination than the airport operator who must call in the ARFF coverage from an off- airport location. It would be well to impress upon the air carrier station agents the importance of keeping you or the ARFF unit apprised of changes in their flight schedules, and to provide instructions in your ACM for contacting those agents for information on late flights or second sections.

Your ACM should contain a description of the alarm system for ARFF response and a requirement for a daily test. The ATCT role in the alarm system, and the test, should be included.

At least one person trained in basic emergency medical care must be available during air carrier operations. This person need not be an actual member of the ARFF crew, but does have to be available within a reasonable time for an airport emergency. The ACM should reflect this persons availability.

If any roads are designated as Emergency Access Roads they should be identified. You may wish to describe here any instructions for their use to ensure the best possible opportunity for the ARFF response to succeed. A word of caution here. Be sure that you understand the obligations that go along with a designated road. You may want to consider other alternative means of meeting the ARFF response time, such as secondary ARFF stations or vehicle standby areas. [*.205(b)(4),(7),(14)*]

SECTION 139.321 Handling and Storing of Hazardous Substances and Materials. There are two rather different situations covered by this portion of the Regulation - one concerning hazardous materials as aircraft cargo, and the other concerning hazardous materials in the form of fuels, lubricants, etc. that are for the operation of the aircraft and are not considered cargo. For convenience the former will be referred to here as hazardous materials (HAZMAT) and the latter as simply "fuel." [*.205(b)(15)*]

When the HAZMAT agent is other than the airport operator, the Hazardous Materials Regulations apply solely and no inclusion in the ACM is necessary. The FAA Aviation Security personnel administer that program. In the infrequent cases where the airport operator is the HAZMAT agent the ACM must contain procedures covering the three designations and assurances listed in the Regulation.

The establishment of fueling safety standards is required of the airport operator for whoever is a fueling agent on the airport. The standards themselves should be copied in an appendix of your ACM. The ACM should describe how you accomplish the 3-month inspection of tenant fueling facilities and the procedures to be initiated should noncompliance with the standards be discovered. List any Part 121 or 135 operators dispensing fuel on your airport which are exempted from the requirements of this Section. You should discuss the notification of the FAA requirement with your FAA airport certification inspector and agree upon the instructions to be placed in your ACM. Frequently the notification requirement can be satisfied by a telephoned call of record to the FAA Regional Operations Center, assuming that no immediate action by the FAA airport certification personnel is required or sought.

SECTION 139.323 Traffic and Wind Direction Indicators. Your ACM should contain a description of those facilities required at your airport, and procedures and responsibilities for maintaining them. [*.205(b)(16)*]

SECTION 139.325 Airport Emergency Plan. The AC on airport emergency plans contains technical information that will help you develop the AEP required by the Regulation. For that reason it is not discussed in depth in this circular. The AEP is, however, a mandatory part of your ACM and the guidelines for specific statements in paragraph 203 regarding responsibility and function apply. [*.205(b)(17)*]

SECTION 139.327 Self-Inspection Program. This activity is very important because it impacts so many other areas of compliance with the Regulation. The self-inspection function enables you to monitor many airport conditions to assist you with compliance with other requirements of the Regulation. The AC on airport safety self-inspection will

help you structure a comprehensive program for your airport. The guidelines of paragraph 203 of this AC should be applied so that all of the elements of an effective inspection program are accomplished. Note that daily inspections are not absolutely required if there is no air carrier activity, but be wary of a long interval between inspections. In any event the schedule of inspections and the concomitant responsibilities should be included in your ACM. [*.205(b)(18)*]

SECTION 139.329 Ground Vehicles. Tight control of ground vehicles can forestall a lot of problems on your movement and safety areas, and clear and precise procedures in your ACM can help ensure that control. It is suggested that your airport rules for vehicle operation be included in an appendix to the ACM for ready reference. If your airport is towered your ACM should also contain any procedures or rules that you have jointly agreed to including radio or other communications arrangements. If you have special written agreements with your tenants concerning vehicle discipline in compliance with the Regulation, they should be an appendix to your ACM for guidance of airport personnel tasked with their enforcement. [*.205(b)(19)*]

SECTION 139.331 Obstructions. The location of lighted obstructions that fall within your airport's authority and responsibility must be included in your ACM. The narrative description may be enhanced by locating the objects on a map and keying them to the description. An airport can have a confusing array of obstruction lights with different parties responsible according to various lease agreements, contract services, etc. Be specific in your ACM which ones are your maintenance responsibilities and which ones are the responsibilities of others. You should also include explanation of who is to contact them in case of an outage, and how they are to do it.

You should identify in your ACM each object within your authority that qualifies as an obstruction, but which has been determined to be "no hazard" by an FAA aeronautical study. This information should include the study file reference so it can be retrieved if necessary. This can save a lot of motion later on and might even eliminate the need to do a study where one had been done but had been forgotten or lost. Remember that an Airport Layout Plan (ALP) approval by the FAA carries the same weight as an aeronautical study with respect to those objects depicted on it. We suggest that you designate, in the ACM, an individual or position to monitor the obstruction situation on your airport. Obstructions have a way of appearing on airports when one isn't looking. [*.205(b)(20)*]

SECTION 139.333 Protection of Navaids. This is another area where the ACM should reflect the assignment of a person or position to be alert to activity that may derrogate the guidance from a NAVAID.

Depending on the placement of the NAVAIDS, there may also be a need to write procedures and assignments into the ACM for security patrols, fence maintenance, etc. [*.205(b)(21)*]

SECTION 139.335 Public Protection. The requirements of Part 139 pertaining to this subject are oriented toward inadvertent entry into an area containing hazards for the unwary trespasser. The prevention of intentional infiltration of airport security areas is within the purview of the regulation on airport security, FAR Part 107. The coverage in your ACM should describe the measures taken at your airport to prevent inadvertent entry by persons or vehicles. Fencing is an obvious method, and conspicuous signing is another. Neither one is much good if the fence gates are left invitingly open or the signs are faded or otherwise obscured. The ACM should provide for continuing surveillance of all of the safeguards on your airport for compliance with this provision of Part 139. [*.205(b)(22)*]

SECTION 139.337 Wildlife Hazard Management. In addressing wildlife hazards at your airport, one of three types of entries are needed in your ACM: a statement of negative activity; a brief statement of the no-hazard findings of an ecological study; or a wildlife hazard management plan. In any case, there should also be instructions to your airport personnel for reporting wildlife activity, should any be observed. [*.205(b)(23)*]

If there is no wildlife activity at your airport, or at least no activity that triggers the ecological study, a statement in your ACM to that effect is needed. If wildlife activity at your airport triggered an ecological study, and it was subsequently determined that a wildlife hazard management plan is not required, your ACM should contain a brief statement that identifies the type and extent of the activity that triggered the study. This will serve as an approximate guage for comparison with subsequent wildlife observations for reevaluation of the situation. In this case you can probably draw on the study to include some specifics on the type of wildlife activity likely to be observed, and some helpful guidance on when the activity may be approaching the limit of acceptability.

If it has been determined that your airport must have a Wildlife Hazard Management Plan, it becomes a permanent part of your ACM unless a subsequent determination removes that requirement. The plan itself should normally be an appendix to the ACM. The AC on airport wildlife hazard management contains technical information that supplements the instructions in the Regulation for the development of the plan. You should also follow the guidance in paragraph 203 of this AC to assure the appropriate level of specific instruction and guidance for airport personnel.

SECTION 139.339 Airport Condition Reporting. The AC on NOTAMS for airport operators contains technical information that will help you to develop this portion of your ACM. Remember that the NOTAM system is often not the complete solution to adequate notification of air carrier users of your airport. Many airports have internal communications systems that extend into air carrier agent offices. These vary from the old but still useful flexowriters, to telephones, to data processing systems with remote terminals or data drops. On some of these systems the air carrier, through their local station agents are able to receive field condition information from airport management before the NOTAM hits the wires. Then, there sometimes are field situations that may be of interest to air carrier users of your airport, but which are not elegible for the NOTAM system coverage you would prefer. Here again your condition reporting responsibility can often be met with your local communications network. Work with your airline tenants to devise a satisfactory system of information flow and document it in your ACM. [*.205(b)(24)*]

SECTION 139.341 Identifying, Marking, and Reporting Construction and Other Unservicable Areas. Two of the AC's listed in paragraph 5, in particular, have applicability for guidance in this area. AC 150/5370-2C, Operational Safety on Airports During Construction, will help you plan safe operations into your construction and maintenance projects. AC 150/5200-28, Notices to Airmen (NOTAMS) for Airport Operators explains how the NOTAM system can be used for airport condition reporting.

Periods of construction and maintenance on an airport present special problems in keeping aircraft and construction machinery and personnel safely apart. Normal routes for aircraft taxiing and maneuvering are often disrupted or modified, and standard signing and marking can become temporarily ineffective or even misleading. Obtaining contractor cooperation in this matter at the beginning is much easier than trying to catch up later. Provide instructions for early input so that the marking and lighting requirements can be built into the construction plans (and costs) at the outset. And, of course, keep the air carrier users of your airport up-to-date by the NOTAMS and any other appropriate means at your disposal. Build these responsibilities and functions into your ACM so that the responsible parties can know what is expected. [*.205(b)(25)*]

Planning for construction projects should always include avoidance of damage to utilities. The importance of the utilities that serve NAVAIDS and other air carrier facilities calls for special attention to their protection. Approach this requirement by designating, in your ACM, a responsible position in your organization for assuring compatibility of the construction plans with protection of these critical utilities. The position you charge with this responsibility should have enough authority to require revision of the plans or suspension of the work activity if necessary. [*.205(b)(8)*]

SECTION 139.343 Noncomplying Conditions. The best way to avoid noncomplying conditions is to build into your ACM, from the very beginning, the mechanisms to provide you, the airport operator, with the timely and accurate information you need to take action to comply with each section of the Regulation. Your personnel need to be provided with clear instructions so that you are informed of any circumstances that require your timely action to maintain compliance with the Regulation. If you delegate responsibility to others, or if tasks may fall on someone else as a result of the application of the line of succession, your best friend will be an ACM that provides the information and guidance needed by your airport personnel to maintain safe airport operations in compliance with the provisions of Part 139.

Should it happen that some element of Part 139 is not met to the extent that an uncorrected unsafe condition exists on your airport, air carrier activity on that area must be halted. Your ACM should carry this message clearly to all airport personnel, so that if someone discovers such a condition they will know that, at the very least, that the information must be passed to a specific level of airport authority without delay.

APPENDIX 2—CONTENT OF THE ACS

1. PURPOSE OF THIS LISTING. Seven of the provisions of Subpart D of the Regulation fully apply to airports with a limited certificate. Those airports prepare and maintain an ACS which reflects the manner in which the airport complies with the listed requirements of Subpart D. Those Subpart D section headings are listed below with amplifying remarks or examples. The order of presentation follows the sequence found in the Regulation. The Regulation also requires the ACS to show how the airport complies with any limitations placed upon the airport by the FAA. Such limitations are rare and, in any case, are based on unique circumstances at a particular airport. Therefore, this Appendix does not address compliance with limitations. [*.213(a)*]

2. ABOUT THIS LISTING. Except for the requirements of a purely administrative nature, all of the items should be written to satisfy the questions WHO, WHAT, HOW, and WHEN as discussed in paragraph 203 of this AC. There are also the Special Elements of Compliance to be considered – refer to paragraph 202. The discussions and examples presented in this listing cannot cover all possible airport situations. Omission of some aspect of the seven Subpart D provisions does not mean it is not required or is of lesser importance. Any questions you may have concerning the application of these discussions or examples to your own airport should be resolved with your certification inspector.

3. SECTIONS OF SUBPART D – OPERATIONS.

SECTION 139.301 Inspection Authority. This should be mentioned in your ACS so that whoever is in charge of the airport in your absence is aware that a credentialed FAA airport certification inspector has authority to inspect for compliance with the Regulation.

SECTION 139.303 Personnel. Except for those areas where the Regulation requires specific training or performance documentation, the FAA normally assumes that a function well performed indicates sufficient qualified personnel. Remember that this requirement includes airport management and supervisory personnel as well. In this regard a chart or table showing the lines of succession of airport operational responsibility would be helpful to demonstrate accountability under this Section, and would also satisfy one of the special elements of compliance. [*.213(b)(1)*]

SECTION 139.305 Paved Areas. This and other extensive maintenance–type requirements will probably have similar patterns in your ACS. Refer to paragraph 203 of this AC and cover those areas of WHO, WHAT, HOW, and WHEN. (See Appendix 4 for an example of what this portion of an ACS might look like.) The Regulation contains several specific requirements for paved areas that are available for air carrier use. The requirements are stated in results–oriented terms and are not so lengthy that they could not be handily repeated in the ACS. This not only meets the requirement of Section 139.213(a) for including procedures, etc., needed by your personnel, it also serves as a reminder directed specifically toward that maintenance activity.

This portion of your ACS may also be a good location for the description of movement areas that are available for air carrier use. Note that this description does not include other paved or unpaved areas on your airport (ramps, parking areas, etc.) which, while usable by air carriers, do not fall within the definition of movement area. You should be aware that the movement area definition found in the Airmen's Information Manual, and various Air Traffic Control manuals, includes the proviso that on a towered airport an air traffic clearance is required to enter a movement area. This latter definition will be the one used in any letters–of–agreement that may be needed between you and the Airport Traffic Control Tower (ATCT) concerning movement areas. If such agreements result in removal of certain pavement segments from the controlled movement areas, that should be described in the ACM. [*.213(b)(6),(7)*]

SECTION 139.307 Unpaved Areas. This section is infrequently found in an ACS outside of Alaska. The pattern of the example in Appendix 4, for paved areas, is applicable for this purpose although an airport with unpaved air carrier surfaces is not

likely to have an elaborate maintenance establishment. There may, however, be some fairly exotic maintenance procedures involved, such as repairing ice runways or determining the point of abandonment of a frozen surface at spring thaw. In the absence of an airport maintenance guide, or other convenient place to record these procedures, use the ACS. [*.213(b)(8)*]

SECTION 139.309 Safety Areas. It is important that the location and obligatory dimensions be clearly and accurately described. The application of the Regulation hinges, in many respects, on the precise delineation of those areas. The dimensions of a safety area on your airport frame the obligations you have with respect to its maintenance. The description of a safety area is only complete if the dimensional data is accompanied by the date those dimensions were established in accordance with the Regulation. The safety areas (dimensions) that existed on December 31, 1987, form the base lines of your maintenance obligations. If construction, reconstruction, or significant expansion of the runway or taxiway began after that date, the associated safety area dimensions are required to be in conformance with current FAA standards. Here again the use of a map or diagram is helpful, especially when describing a runway safety area that has different dimensions for each end. In this regard a graphic supplement to the narrative description is invaluable. If you have a basic, uncluttered grid map as a starting point, it may be of use for this purpose. Because of the wide usage this sort of figure frequently receives, it is an appropriate candidate for an appendix. [*.213(b)(6),(9)*]

SECTION 139.311 Marking and Lighting. The pattern of the example in Appendix 4 for paved area maintenance provides a good base for your instructions here. Generally speaking, the maintenance task is to fix or replace the broken or missing item in kind. However there are a few additional points to be considered. If the light is burned out it should be a simple matter to replace the bulb. But if the light has been smashed out of recognizable existence or stolen, you need to be sure that whoever replaces it knows what kind of fixture to use. Well written instructions supplemented by an airport diagram are valuable insurance against slip-ups like an edge light in the last 2000' of an instrument runway without a yellow side. You should also include clear instructions on just how many, and in what sequence, lights may be out before the system is considered inoperative. Guidance on this is in AC 150/5340-26, Maintenance of Visual Aid Facilities. [*.213(b)(10)*]

This is an appropriate place to describe your runway and taxiway system of identification. In addition to the system description it is recommended that a runway (RY) and taxiway (TWY) diagram be provided, especially if your identification system varies from the norm or is otherwise complicated. You should also know who is responsible for the approach lights at your airport and include the means of contacting them. [*.213(b)(4),(10)*]

SECTION 139.339 Airport Condition Reporting. The AC on NOTAMS for airport operators contains technical information that will help you to develop this portion of your ACS. Remember that the NOTAM system is often not the complete solution to adequate notification of air carrier users of your airport. Many airports have internal communications systems that extend into air carrier agent offices. These vary from the old but still useful flexowriters, to telephones, to data processing systems with remote terminals or data drops. On some of these systems the air carrier, through their local station agents are able to receive field condition information from airport management before the NOTAM hits the wires. Then, there sometimes are field situations that may be of interest to air carrier users of your airport, but which are not elegible for the NOTAM system coverage you would prefer. Here again your condition reporting responsibility can often be met with your local communications network. Work with your airline tenants to devise a satisfactory system of information flow and document it in your ACS. [*.213(b)(15)*]

4. ADDITIONAL ELEMENTS FOR COMPLIANCE. Section 139.213(b) lists sixteen special elements for compliance with ACS. Elements 1, 4, 6, 7, 8, 9, 10, and 15 have been referenced in paragraph 3, above, in association with the provisions of Subpart D which are mandatory for airports with an ACS. Two others, Exemptions and Limitations, are addressed in paragraphs 204 and 205. The remaining six special elements are discussed in this paragraph. They are additional elements which must be covered in your ACS. They have obvious relationships to provisions of Subpart D but they do not always require the same degree of coverage. Their scope and depth of coverage will be determined as appropriate for the specific circumstances of your airport. When you prepare your ACS for FAA approval, use your best judgement on how to address these elements. The FAA will be looking for as close to a Subpart D level of safety as you can reasonably provide. The frequency of air carrier activity, the length of the aircraft used, and the comparable level of safety of other, similarly situat-

ed airports will all be considered. Expense alone will not be sufficient justification for a minimal safety posture.

a. Obstructions. You should know, and reflect in your ACS, the location of points on your airport which constitute obstructions. Document, or request an FAA aeronautical study to determine, the need to remove or light the obstruction. Provide instructions in your ACS to maintain those obstruction lights that are your responsibility. [*.213(b)(5)*]

b. ARFF. Describe the means, including equipment, personnel, and systems that you have available to provide ARFF capability at your airport during Air Carrier operations. Include response time and quantity/type of fire extinguishing agent information. Have on file current letters of agreement or letters of intent from off-airport parties if that is where you intend to obtain your ARFF capability. [*.213(b)(11)*]

c. Hazardous Substances. Provide procedures and systems for the safe handling of aircraft fuel and hazardous air cargo if you are the handling agent. Basic fire protection is most important here, and periodic surveillance of tenant fueling operations is strongly recommended. [*.213(b)(12)*]

d. Wind Indicators. Compile a list of the type and location of your wind indicators. Provide the procedures you employ to ensure their proper operation. [*.213(b)(13)*]

e. Self Inspection. You should provide some regular level of continuing airport inspection activity, and an inspection prior to and air carrier is necessary. Document this in your ACS. [*.213(b)(14)*]

f. Other Subpart D. If the FAA requires compliance with another provision of Subpart D, include in your ACS anough detail to show how you meet that requirement. [*.213(b)(16)*]

APPENDIX 3—ADVISORY CIRCULAR LISTING

1. PURPOSE OF THIS LISTING. This listing, selected from the library of airport-related AC's, should be helpful to airport operators who are developing or revising an ACM/ACS to meet the requirements of Part 139. This is not intended to be a listing of all AC's which may be of use to operators of certificated airports. The criteria for this listing was weighted toward operational applicability. There are many other useful AC's which are devoted to airport design and construction subjects.

2. ABOUT THIS LISTING. The listing is divided into groups according, as nearly as possible, to sections of the Regulation. The six AC's described in paragraph 5 of this AC are repeated here and are marked with an asterisk. They are of particular utility in the preparation of an ACM/ACS because they were developed, at least to some degree, with Part 139 in mind. The other AC's in this listing have application to Part 139 and ACM/ACS development due to their technical subject matter, but there may be some overlaps of coverage, and some gaps. Keep in mind the relationship of AC's to the Regulation (refer back to Chapter 4). While every effort will be made to keep this list current, these AC's are subject to revision by various FAA technical offices. In case of a question, use the version with the latest letter suffix (a letter suffix to the AC number denotes a revision) or consult with your credentialed airport certification inspector.

3. PAVED AREAS. [*.305*]

AC 150/5320-6C, Airport Pavement Design and Evaluation

4. SAFETY AREAS. [*.309*]

AC 150/5300-12, Airport Design Standards--Transport Airports

AC 150/5300-4B, Utility Airports--Air Access to National Transportation

AC 150/5320-5B, Airport Drainage

5. MARKING AND LIGHTING. [*.311*]

AC 70/7460-1G, Obstruction Marking and Lighting

AC 150/5340-1F, Marking of Paved Areas on Airports

AC 150/5340-4C, Installation Details for Runway Centerline Touchdown Zone Lighting Systems

AC 150/5340-5B, Segmented Circle Airport Marker System

AC 150/5340-14B, Economy Approach Lighting Aids

AC 150/5340-17B, Standby Power for Non-FAA Airport Lighting Systems

AC 150/5340-18B, Standards for Airport Sign Systems

AC 150/5340-19, Taxiway Centerline Lighting Systems

AC 150/5340-26, Maintenance of Airport Visual Aid Facilities

6. SNOW AND ICE CONTROL. [*.313*]

* AC 150/5200-30, Airport Winter Safety and Operations

7. AIRCRAFT RESCUE AND FIREFIGHTING. [*.315;.317;.319*]

AC 150/5200-12A, Fire Department Responsibility in Protecting Evidence at the Scene of an Aircraft Accident

AC 150/5210-6C, Aircraft Fire and Rescue Facilities and Extinguishing Agents

AC 150/5210-7B, Aircraft Fire and Rescue Communications

AC 150/5210-15, Airport Rescue and Firefighting Station Building Design

AC 150/5210-12, Fire and Rescue Service for Certificated Airports

AC 150/5210-13, Water Rescue Plans, Facilities, and Equipment

AC 150/5210-14, Airport Fire and Rescue Personnel Protective Clothing

8. HAZARDOUS MATERIALS. [*321*]

AC 20-43C, Aircraft Fuel Control

AC 150/5230-4, Aircraft Fuel Storage, Handling, and Dispensing on Airports

9. TRAFFIC AND WIND DIRECTION INDICATORS. [*323*]

AC 150/5340-5B, Segmented Circle Airport Marker System

AC 150/5340-23A, Supplemental Wind Cones

AC 150/5345-27C, Specification for Wind Cone Assemblies

10. AIRPORT EMERGENCY PLAN. [*325*]

* AC 150/5200-xx, Airport Emergency Plan (AEP) (proposed)

AC 150/5210-2A, Airport Emergency Medical Facilities and Services

AC 150/5340-17B, Standby Power for Non-FAA Airport Lighting

11. SELF-INSPECTION PROGRAM. [*327*]

* AC 150/5200-18B, Airport Safety Self-Inspection

12. GROUND VEHICLES. [*329*]

AC 150/5210-5B, Painting, Marking, and Lighting of Vehicles Used on an Airport

* AC 150/5370-2C, Operational Safety on Airports During Construction

13. OBSTRUCTIONS. [*331*]

AC 70/7460-1G, Obstruction Marking and Lighting

14. PROTECTION OF NAVAIDS. [*333*]

AC 150/5300-2D, Airport Design Standards--Site Requirements for Terminal Navigational Facilities

AC 150/5340-1F, Marking of Paved Areas on Airports

15. PUBLIC PROTECTION. [*335*]

AC 150/5335-2, Airport Aprons

16. WILDLIFE HAZARD MANAGEMENT. [*337*]

* AC 150/5200-==, Airport Wildlife Hazard Management (proposed)

17. AIRPORT CONDITION REPORTING. [*339*]

* AC 150/5200-28, Notices to Airmen (NOTAMS) for Airport Operators

18. IDENTIFYING, MARKING, AND REPORTING CONSTRUCTION AND OTHER UNSERVICEABLE AREAS. [*341*]

AC 150/5340-1F, Marking of Paved Areas on Airports

* AC 150/5370-2C, Operational Safety on Airports During Construction

* AC 150/5200-28, Notices to Airmen (NOTAMS) for Airport Operators

APPENDIX 4—EXAMPLE OF ACM/ACS ENTRY

1. SELECTION OF AN EXAMPLE. The requirement in Section 139.305 of Subpart D for the maintenance and repair of paved surfaces on the airport embodies all of the points of WHO, WHAT and HOW, and WHEN, of paragraph 203 of this AC. It is also equally applicable to the ACM and the ACS. The various pieces of information that have been included in the example are, in this hypothetical instance, deemed to be necessary to impart the desired instructions to the airport personnel. In your own situation you may need to include more or less, or different, information in your ACM/ACS. In any event the test is, does the ACM/ACS satisfy the WHO, WHAT and HOW, and the WHEN.

2. SCENARIO FOR THE EXAMPLE. This is an airport with a few craft-oriented maintenance shops under the supervision of an Airport Engineer. All of the paved areas for aircraft use are the responsibility of the Airport Engineer (the access road and vehicle parking lot are maintained by the City road crews) except the FBO apron which is maintained by the FBO. The FBO's contract with the City requires the FBO to maintain the apron to Part 139 requirements (it is available to air carriers) and to allow its inspection by airport personnel.

When the Airport Engineer is absent the shop foremen act in that capacity in their order of seniority. A line-of-succession table and an organization chart appended to the ACM/ACS documents this chain of responsibility. There are similar provisions in these documents for alternates to act for the Airport Manager when that individual is absent. When there is reference to the Airport Manager or the Airport Engineer in this example, the reference applies to the alternate as well.

The airport has developed a Paving Repair Guide for its own use which contains technical instructions, some of which came from the AC's listed in Appendix 3 to this AC, for the maintenance force. That level of task performance detail is not included in the ACM/ACS.

The daily airport inspections are normally performed by Designated Inspectors who are trained to reliably identify and describe Part 139 pavement deficiencies. Therefore, the Airport Engineer customarily relies on their reports for initiating Work Orders without personal inspection of the problem. The Work Order forms contain a block which the inspector checks to denote a Part 139- critical maintenance item. This device flags the Work Order as a priority activity, and later directs the completed record to the appropriate filing location.

The Airport Engineer has standing instructions to notify the Airport Manager (AMGR) of any delay in correction of a Part 139 deficiency so that the need for adjustment of air carrier service can be evaluated. Scheduled air carrier service ends at 1600 Saturday and does not resume until Monday morning. The airport is published "closed" in the Airport/Facilities Directory to air carriers during that period except for special permission. The maintenance work crew complement is reduced during that period to save money, but this also tends to slow down the work accomplishment. Therefore the Airport Engineer must keep the AMGR currently informed on the maintenance progress in case a charter air carrier flight calls for permission for an off-hours operation.

When the work is completed, the Work Order is signed off and filed with the daily inspection reports to complete the records retention required by the Regulation.

This statement was prepared for the ACM/ACS, but was also structured so that it was a self-contained excerpt for the information and guidance of airport personnel. Note the use of references to the figures in appendices to the ACM/ACS without repeating the information each time it is needed.

3. EXAMPLE OF THE ACM/ACS ITEM.

PAVEMENT MAINTENANCE SUMMARY

This statement summarizes the responsibilities and standards for pavement maintenance at the = = = Airport. A copy of this summary is to be posted on the Maintenance Control Board in Building #16 and on the ARFF bulletin board. These responsibilities and standards are mandatory for compliance with Federal Aviation Regulation Part 139. All work will be accomplished in accordance with the = = = Airport Pavement Maintenance Guide.

RESPONSIBILITIES

The maintenance of all paved surfaces on the air side of the terminal is, with the exception noted below, the responsibility of the Airport Engineer (AE).

Exception:

The aircraft parking apron served by TWY B in front of FBO = = = hangars (see Airport Map, Appendix ===) is maintained by that FBO. The terms of the FBO contract guarantee maintenance to Part 139 requirements. The AE is authorized to inspect the apron at any time and to order repairs by the FBO. Any such orders shall be reported to the Airport Manager (AMGR) within 4 workday hours.

DELEGATIONS AND SUCCESSIONS

The title AE is used herein as the party responsible for the accomplishment of pavement maintenance. In the absence of the AE from the airport, the senior shop foreman assumes those responsibilities unless specifically relieved of all or a portion of them by the AMGR; see the Airport Organization chart, Appendix ===.

The shop foreman assuming those responsibilities is automatically vested with the same authority as the AE to order labor and materials from any airport shops, or from vendors, as are necessary to effect repairs to meet Part 139 requirements, except that obligations to vendors may not exceed $=== without approval by the AE or the AMGR.

PART 139 MAINTENANCE STANDARDS AND APPLICATION

The Part 139 requirements for pavement maintenance are listed below:

1. Pavement edges - may not exceed 3" difference between: abutting pavement sections; full strength pavement and abutting shoulders.

2. Pavement hole - none may exceed 3" in depth nor have a slope which, from any point in the hole to the nearest lip, is or exceeds 45 degrees measured from the surface plane, unless the hole can be covered by a five inch diameter circle.

3. Cracks and surface variations - none which could impair directional control of air carrier aircraft.

4. Surface debris & contaminants - remove promptly and completely as practicable. Does not apply to snow and ice and their control materials - see Snow and Ice Control.

5. Chemical cleaning solvents - remove as soon as possible consistent with manufacturer's instructions. Does not apply to snow and ice control materials - see Snow and Ice Control.

6. Ponding - maintain drainage and slope to prevent ponding that obscures markings or impairs safe aircraft operations.

PROCEDURES

The AE shall initiate an airport maintenance Work Order (WO), with the Part 139 block checked, for all work needed to restore pavement to Part 139 requirements. If the Part 139 pavement deficiency was reported by a Designated Inspector, the WO will be initiated immediately upon receipt of the daily inspection report. If the daily inspection was performed by other than a Designated Inspector, or if a report of a Part 139 type pavement deficiency came from some other source, the AE shall have the deficiency evaluated immediately by a qualified maintenance specialist and, if the condition is verified, initiate the WO.

If for any reason a WO for a Part 139 repair cannot be put under work immediately or if it appears that a delay in the completion of the work will occur, the AE shall notify the AMGR. The only exception is if the deficiency is reported after 1600 Saturday and before 2000 Sunday, and the work can be completed prior to 2000 Sunday. In that case, however, the airport Operations Duty Officer must be notified of the existing Part 139 deficiency.

The signed-off copy of a Part 139 WO shall be sent to the airport Operations Section for filing with the daily inspection reports. The check in the Part 139 block of the AE's desk copy shows its location should it be needed.

APPENDIX 5—AUTOMATED ACM/ACS ADVISORY CIRCULAR

1. PURPOSE. This automated ACM/ACS version of the advisory circular provides the airport operator and other users an automated means for developing and modifying the ACM/ACS.

2. FOCUS. This automated ACM/ACS was developed by the Office of Airport Standards. The disk includes instructions on how to install and use the software. An airport operator equipped with a personal computer (PC) can reduce the ACM/ACS preparation time by a significant margin and with considerable less clerical workload. The revision of the ACM/ACS will be much easier and faster than with traditional methods. The ease of revision is expected to improve the time between the changed airport conditions and activities and the changed ACM/ACS.

3. EQUIPMENT REQUIRED. The automated ACM/ACS requires the following equipment to operate properly:

IBM PC/XT/AT or compatible
DOS 2.0 or higher
512K of system memory
2 floppy drives or
1 floppy and a hard disk

4. HOW TO ORDER. A copy of the Automated ACM/ACS version of this AC may be obtained at no cost by writing to the Federal Aviation Administration, Safety and Compliance Division, 800 Independence Avenue, SW., Washington, DC 20591, ATTN: AAS-300. Telephone inquiries should be directed to (202) 267-8724.