CHANGE 1

Initiated by:

AAS-300

DATE 3/24/81

ADVISORY CIRCULAR

CHANGE



DEPARTMENT OF TRANSPORTATION
Federal Aviation Administration
Washington, D.C.



Subject: Change 1 to AIRPORT OPERATIONS MANUAL -- Adds New Requirement

1. <u>PURPOSE</u>. This Change revises guidance for presentation of the contents of the manual so that those portions required by Federal Aviation Regulations (FAR) Part 139 are consolidated and identified.

The Change number and date of changed material are carried at the top of the page. Changed material is indicated by asterisks in the margins.

2. PRINCIPAL CHANGES. The change to paragraph 10d is intended to preserve the integrity of FAR Part 139 required elements in the manual and aid both airport operators and FAA personnel in assuring compliance. Minor editorial changes have been made in paragraphs 10a, c, e, and f.

PAGE CONTROL CHART

Remove Pages	Dated	Insert Pages	Dated
7 (and 8)	6/16/72	7 (and 8)	3/24/81

LEONARD E. MUDD

Acting Associate Administrator for Airports

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b. The difference in operational requirements between high activity and low activity airports is recognized. Therefore, the Airport Operations Manual for a low activity airport can be expected to be not as comprehensive in scope as the manual for a high activity airport.

10. PRESENTATION OF CONTENTS.

- a. Recognizing the individuality of the many airports to be certificated, the Airport Operations Manual may be presented in a format best suited to the characteristics and operational requirements of the operator's airport.
- b. The manual should be presented in such a way that it is easy to read and maintain. It is suggested that a three-ring, hard-back binder be used that is serviceable and durable. The three-ring binder will make manual revisions easier to accomplish.
- c. Under Section 139.33(g) of FAR Part 139, any revision to the manual pertaining to the items required by the rule must be dated. This date should be placed on the lower portion of the revised page.
- d. The manual should be properly indexed and tabbed so each required section can be readily identified. The portions of the manual that are required by FAR Part 139 should be consolidated and presented as a separate and distinct part. This will assist airport management in compliance and the certification inspector in assessment of compliance. Only the FAR Part 139 portions should be submitted to the FAA for approval and dating.
- e. It is suggested that separate sections within the manual have color coded tabs for easy identification.
- f. Under each format item in Appendix 1 are suggested areas that should be covered in the manual. These areas are not all inclusive but are intended to provide broad guidance so airport operators will have flexibility in developing their own manuals.
- g. Suggested worksheets are provided in Appendix 5 for recording data.



AC NO: AC 150/5280-1

DATE: JUNE 1972



ADVISORY CIRCULAR

AIRPORT OPERATIONS MANUAL

DEPARTMENT OF TRANSPORTATION FEBERAL AVIATION ADMINISTRATION

Initiated by: AS-700

AC NO: 150/5280-1

DATE:

16 Jun 72



DVISORY CIRCULAR

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

SUBJECT: AIRPORT OPERATIONS MANUAL

PURPOSE. This advisory circular primarily sets forth guidelines to assist airport operators in developing an Airport Operations Manual in compliance with the requirements of Federal Aviation Regulation (FAR) Part 139. This circular also provides guidance on submission of the Airport Operating Certificate Application. This guidance is presented in a way that should be meaningful to the operator of both the small as well as the more complex airport.

2. REFERENCES.

- Federal Aviation Regulation Part 139, Certification and Operations: Land Airports Serving CAB-Certificated Scheduled Air Carriers Operating Large Aircraft (Other Than Helicopters), Volume X, may be obtained from the U.S. Government Printing Office, Washington, D.C. 20402. Make check or money order for \$4.50, payable to the Superintendent of Documents; no C.O.D. orders are accepted.
- Other advisory circulars are listed in Appendix 2 as reference material under the individual areas to which they apply.
- 3. ADDITIONAL COPIES. Copies of this advisory circular can be obtained from the Department of Transportation, Distribution Unit, TAD-484.3, Washington, D.C. 20590.

Chester G. Bowers

Director, Airports Service

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CHAPTER 1. INTRODUCTION

1. PURPOSE OF THE AIRPORT OPERATIONS MANUAL.

- a. The Airport Operations Manual is a working tool in the day-to-day operations of the airport for the enhancement of safety.
- b. The Airport Operations Manual provides a means for the airport operator to report to the Federal Aviation Administration on:
 - (1) The conditions at his airport for those items required for certification eligibility in FAR Part 139; and
 - (2) The methods of operation that he expects to use to meet the continuing requirements of airport certification.

2. OBJECTIVE OF THIS ADVISORY CIRCULAR.

- a. Explain the operation of the Airport Certification Program.
- b. Provide guidance in submitting the data required in the Airport Operations Manual for initial issuance of the Airport Operating Certificate.
- c. Provide guidance on the methods and procedures to be used to meet the continuing requirements of the certification program after initial issuance of the certificate.

3. BACKGROUND OF THE CERTIFICATION PROGRAM.

- a. The Federal Aviation Act of 1958 was amended on 21 May 1970 by adding Section 612, paragraph (a) of which provides: "(a) The Administrator is empowered to issue airport operating certificates to airports serving air carriers certificated by the Civil Aeronautics Board and to establish minimum safety standards for the operation of such airports." The FAA issued rules for airport certification in FAR Part 139.
- b. Section 612(b), as amended on 27 November 1971 by Public Law 92-174, provides: "(b) Any person desiring to operate an airport serving air carriers certificated by the Civil Aeronautics Board may file with the Administrator an application for an airport operating certificate. If the Administrator finds, after investigation, that such person is properly and adequately equipped and able to conduct a safe operation in accordance with the requirements of the Act and the rules, regulations, and standards prescribed

thereunder, he shall issue an airport operating certificate to such person. Each airport operating certificate shall prescribe such terms, conditions, and limitations as are reasonably necessary to assure safety in air transportation. Unless the Administrator determines that it would be contrary to the public interest, such terms, conditions, and limitations shall include but not be limited to terms, conditions, and limitations relating to the operation and maintenance of adequate safety equipment, including fire fighting and rescue equipment capable of rapid access to any portion of the airport used for the landing, takeoff, or surface maneuvering of aircraft."

- c. An amendment to Section 610 of the Act further provides that it shall be unlawful "(8) For any person to operate an airport serving air carriers certificated by the Civil Aeronautics Board without an airport operating certificate, or in violation of the terms of any such certificate." The compliance date originally was 21 May 1972. On 27 November 1971, Public Law 92-174 extended the compliance date to 21 May 1973.
- d. Section 139.31 of FAR Part 139 requires each applicant for an Airport Operating Certificate to prepare and submit for approval by the Administrator its Airport Operations Manual with its application for certification. The manual and the application are submitted to the FAA Airports field office, which in each case is the appropriate regional office.

CHAPTER 2. GENERAL

4. APPLICABILITY.

- a. Federal Aviation Regulation Part 139 applies to land airports regularly serving scheduled air carriers that hold certificates of public convenience and necessity issued by the Civil Aeronautics Board and that operate large aircraft (other than helicopters) into those airports.
- b. Large aircraft are defined as those aircraft of more than 12,500 pounds maximum certificated takeoff weight.

INSPECTION PROCEDURES.

- a. The airport operator, when inspecting his airport to gather the data to be used by the FAA in determining his eligibility for certification, should consider all of the items listed under the heading, "Data for Airport Certification Eligibility," found in items 4 through 18 of Appendix 1 to this advisory circular.
- b. The FAA personnel will use the data submitted in its determination as to whether the certification requirements have been met. This data may also be used to review the condition of the airport prior to performing a physical inspection of the facilities. The FAA personnel may perform inspections at any time to assure continued compliance.

6. APPLICATION FOR CERTIFICATION.

- a. Preliminary Discussions. Preliminary informal discussions between the airport operator and FAA personnel are encouraged in order to assist in the preparation of the Airport Operations Manual and the application form, and to insure that there is a full understanding of the requirements of FAR Part 139. Procedures for inspecting the airport may also be reviewed.
- b. Submission of Application. An application for issuance of a certificate is made on FAA Form 5280-1, Airport Operating Certificate Application, and submitted to the Airports Division of the regional office in whose area the applicant proposes to establish or has established its airport. An applicant is required by Section 139.13 of FAR Part 139 to submit its application no later than 120 days after the effective date of the regulation. An applicant whose airport is not in operation before the effective date of the regulation must submit its application at least 120 days before the date of intended operations. The

application form, obtainable from FAA Airports field offices, is shown in Appendix 3 to this advisory circular. (This same form may also be used in connection with applications for exemption and amendment to the Airport Operations Manual and certificate.) The application and the Airport Operations Manual will be submitted to the appropriate Airports Division of the regional office. This FAA office, after receiving the application and the Airport Operations Manual, will then review the manual and, if necessary, contact the applicant to make whatever arrangements are needed to complete, correct, or clarify any submitted material.

c. <u>Distribution of Application and Airport Operations Manual</u>. The original and three copies of the application form, along with one copy of the Airport Operations Manual, will be submitted to the appropriate FAA Airport Division of the regional office. The receiving office will acknowledge receipt and complete distribution as necessary. The copy of the manual will remain in the appropriate FAA Airports Division of the regional office.

7. AIRPORT OPERATING CERTIFICATE.

- a. General. An Airport Operating Certificate is issued when the Administrator finds, after investigation, that the applicant's airport is properly and adequately equipped to conduct a safe operation in accordance with FAR Part 139 and approves the Airport Operations Manual which is submitted with the application. If it is found that some requirement is not met, the applicant is advised in writing by the FAA of the reasons for not issuing an Airport Operating Certificate. Deficiencies noted in the application submittal or in the inspections should be corrected and a review of those items not meeting the regulation will be conducted as soon as practical.
- b. <u>Content</u>. The Airport Operating Certificate contains the name of the airport, the owner, the operator, airport limitations, and any other item the FAA Administrator determines is necessary to cover a particular situation (Appendix 4).

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CHAPTER 3. PREPARATION GUIDANCE

8. CONTENT.

- a. Under Section 139.33 of FAR Part 139, the Airport Operations Manual must include all of the information necessary to show:
 - (1) Compliance and the means and procedures, in detail, used to comply with each certification rule prescribed by Subpart D.
 - (2) The means and procedures, in detail, to be used after certification to comply with each operations rule prescribed by Subpart E. In this connection, note that Section 139.81 (Operations rules: General) provides that "Each person operating an airport for which an airport operating certificate has been issued under Subpart B of this Part shall--
 - (a) "Operate, maintain, and provide facilities, equipment, systems, and procedures at least equal in condition, quality, and quantity to the standards currently required for the issue of the airport operating certificate for that airport;
 - (b) "Have sufficient personnel available, and require that personnel, to comply with its approved airport operations manual in the performance of their duties; and
 - (c) "Comply with the additional rules of this subpart."
- b. Section 139.33(b) through (h) requires the inclusion of additional specified material in the manual and provides requirements as to format. Paragraphs c through h below refer to these items.
- c. Under Section 139.33(b) and (c):
 - (1) Duties and responsibilities of airport personnel should be explained in sufficient detail for airport employees to effectively accomplish those assigned duties and responsibilities.
 - (2) Official job titles of key airport employees should be listed along with a brief description of their responsibilities. An organizational chart should be included showing operational lines of succession to insure that there is no breakdown in accomplishing the required tasks.

d. Under Section 139.33(d):

- (1) Maps, charts, or other illustrations included in the manual will assist in the presentation of information. Maps and charts used to show locations of airport facilities may utilize existing items such as the Airport Layout Plan (ALP), Obstruction and Evaluation Chart, and the FAA Airport Master Record. In most cases, a single map or chart may be used to support two or more requirements.
- (2) Gridmaps should be used for locating specific areas such as maintenance, construction, and air operations areas.
- (3) Terrain features should be shown. Airport familiarization should include all of the areas that could be a problem in providing airport fire fighting and rescue services. Of primary concern should be the approach areas to the runways and access to these areas.
- (4) The air operations areas should be shown including runway and taxiway systems, vehicle lanes transiting air operations areas, and aircraft parking areas. The location of NAVAID facilities should also be shown.
- e. Under Section 139.33(e), the existence and location of a current utility layout plan must be indicated. However, they will be of assistance if also made a part of the manual. The plans should show the most significant utility facilities as appropriate, such as underground lines for water (including fire hydrant system), electricity, sewage, and fuel. These plans would be beneficial in briefing contractor personnel for the prevention of the interruption of these primary services during subsequent periods of construction.
- f. Under Section 139.33(h), when an exemption from compliance with safety equipment requirements is granted under Section 139.19 of FAR Part 139, the manual must show the exemption.

9. SCOPE.

a. It is anticipated that the Airport Operations Manual will be utilized on a continuing basis by the respective airport owners and their personnel in carrying out daily activities. Therefore, the content of the manual need not be limited only to those items contained in FAR Part 139. If additional items are included in the manual for the convenience of the applicant, as they pertain to airport certification, the FAA will only hold the applicant responsible for the requirements of FAR Part 139.

b. The difference in operational requirements between high activity and low activity airports is recognized. Therefore, the Airport Operations Manual for a low activity airport can be expected to be not as comprehensive in scope as the manual for a high activity airport.

10. PRESENTATION OF CONTENTS.

- a. Recognizing the individuality of the many airports to be certificated, the Airport Operations Manual may be presented in a format best suited to the applicant's airport characteristics and operational requirements.
- b. The manual should be presented in such a way that it is easy to read and maintain. It is suggested that a three-ring, hard-back binder be used that is serviceable and durable. The three-ring binder will make manual revisions easier to accomplish.
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- d. The manual should be properly indexed and tabbed so each required section can be readily identified.
- e. It is suggested that separate sections within the manual have color coded tabs for each identification.
- f. Under each format item in Appendix 1 are suggested areas that should be covered in the manual. These areas are not all inclusive but are intended to provide broad guidance so each airport operator will have flexibility in developing his own manual.
- g. Suggested worksheets are provided in Appendix 5 for recording data.

APPENDIX 1. SUGGESTED AIRPORT OPERATIONS MANUAL FORMAT

1. INTRODUCTION.

- a. Name and location of airport.
- b. Mailing address of airport manager or operator.

2. PERSONNEL.

- a. List of key personnel and job titles.
- b. Brief description of functions.
- c. Organizational chart showing operational lines of succession.

AIRPORT FAMILIARIZATION.

- a. Brief description of airport and primary activities,
 e.g., provide services to air carrier, general aviation
 aircraft, etc.
- Maps and charts showing such things as general layout of airport, air operations areas, terrain features, and runway and taxiway systems.

4. PAVEMENT AREAS (Sections 139.43 and 139.83).

- a. Data for Airport Certification Eligibility.
 - (1) Indicate on a worksheet the location of all pavement lips (runways, taxiways, and aprons) and the maximum vertical dimension between full strength pavement and abutting shoulder.
 - (2) Identify types of surface for each runway, taxiway, and apron.
- b. Data for Compliance with Operations Rules
 - (1) Describe the procedures to be used to inspect the pavement areas for discrepancies and corrective actions.

- (2) Describe the methods to be used to notify appropriate personnel of any discrepancies and fix the responsibility for inspections and repair.
- 5. SAFETY AREAS (Sections 139.45 and 139.85).
 - a. Data for Airport Certification Eligibility.
 - (1) Indicate the types and sizes of safety areas on a worksheet. Indicate size of landing strip if constructed before 18 February 1970.
 - (2) Indicate the function of each object in the safety areas, its height above ground, and whether constructed on frangible mounted supporting structures.
 - (3) Describe type and condition of storm sewer system used to keep water off safety areas, or describe natural topography allowing water runoff.
 - b. Data for Compliance with Operations Rules.
 - (1) Describe procedures to be used to inspect the safety areas for discrepancies and corrective actions.
 - (2) Describe procedures to be used to maintain the drainage system.
 - (3) Describe procedures to be used for snow removal and positioning, and notification procedures if unable to promptly comply.
- 6. MARKING AND LIGHTING RUNWAYS, THRESHOLDS, AND TAXIWAYS (Sections 139.47 and 139.87).
 - a. Data for Airport Certification Eligibility.
 - (1) Indicate which of the following operable lighting systems are installed on surfaces used by the air carrier aircraft and date of last inspection:
 - (a) Runway edge: High intensity?

 Medium intensity?
 - (b) Runway centerline.

- (c) Taxiway edge.
- (d) Taxiway centerline.
- (e) Touchdown zone.
- (f) Apron edge taxiing lights.
- (g) Ramps.
- (h) Category II.
- (i) Category III (a, b, or c).
- (j) Approach lights and type.
- (k) Refueling areas.
- (1) Runway thresholds.
- (m) Rotating airport beacon.
- (n) Wind indicators.
- (o) Obstruction lights.
- (p) SAVASI.
- (q) REILS.
- (r) VASI (type).
- (s) MALS.
- (t) Other.
- (u) Guidance signs.
- (2) Describe location of apron, vehicle parking, roadway, or building illumination lighting which may blind or hinder the control tower or aircraft operations.

- (3) Identify each type and condition of marking used for:
 - (a) Runway centerline.
 - (b) Runway threshold.
 - (c) Runway touchdown zone.
 - (d) Runway designation.
 - (e) Taxiway centerline.
 - (f) ILS critical areas.
 - (g) Holding lines for CAT II operations and for taxiways.
- b. Data for Compliance with Operations Rules.
 - (1) Describe procedures to be used to inspect and correct discrepancies for the lighting of runways, thresholds, and taxiways and for markings listed in a(3) above.
 - (2) If any installed lights become inoperable, describe the circumstances and the procedures for public notification.
- 7. AIRPORT FIRE FIGHTING AND RESCUE EQUIPMENT AND SERVICE (Sections 139.49 and 139.89).
 - a. Data for Airport Certification Eligibility.
 - (1) What is the average number of daily scheduled departures of each type of CAB-certificated air carrier aircraft?
 - (2) Provide a list of the fire fighting and rescue equipment to be used to meet the certification requirements including the results of the response time as determined by test runs. Use the relevant worksheet in Appendix 5 as a reference. (A complete list of fire fighting equipment would be beneficial.)
 - (3) Where are the required fire fighting vehicles positioned in order to meet the required response time?
 - (4) How are the vehicles painted, marked, and lighted (emergency lights)?

- (5) What cover (type of housing) is provided for vehicles subject to prolonged temperatures below 33°F?
- (6) What type of communications with emergency vehicles are used?
- (7) How are the fire fighting/rescue personnel alerted for an emergency?
- (8) Indicate if adequate protective clothing is available so personnel may operate the fire fighting equipment at the required 85 percent discharge rate.
- (9) What is the familiarization program for new fire fighting personnel?
- (10) Show on a gridmap the location of the fire station on the airport and primary traffic routes for the fastest response to all air operations areas.
- (11) List the hours of scheduled operations by certificated air carriers operating large aircraft and the duty hours of the fire fighting and rescue personnel.
- (12) If the fire fighting equipment and services are provided by other than the airport operator, provide the mutual-aid agreements and the location of such sources of service. The location should be shown on a vicinity (city, county, etc.) map.
- b. Data for Compliance with Operations Rules.
 - (1) Describe procedures to be used for testing alarm, alerting fire department such as who gives the alarm, how is the alarm transmitted, who receives the alarm, and explain fire department response procedures.
 - (2) Indicate the location of training records including training procedures, in-station classroom instruction, schools attended by fire fighters for aircraft fire fighting, available training aids such as films, charts, and number and size of hot fire drills.
 - (3) List the equipment to be used to comply with the operations rules.

(4) Describe procedures for maintaining the fire fighting and rescue vehicle to include replacement equipment and notification methods to air carrier users when the equipment becomes inoperable.

8. HANDLING AND STORING HAZARDOUS ARTICLES AND MATERIALS (Section 139.51).

- a. Data for Airport Certification Eligibility.
 - (1) Are personnel designated to receive and handle hazardous articles and materials in those cases where the airport operator is designated as the cargo handling agent?
 - (2) If you are the cargo handling agent, what controls and procedures are there to assure that the cargo shipped can be handled and stored safely, including any special handling procedures required for safety?
 - (3) Where are the special areas on the airport for the storage of flammable liquids and solids, corrosive liquids, compressed gases, and magnetized or radioactive materials?
 - (4) What procedures and devices are used for the safe storing, dispersing, and otherwise handling of fuel, lubricants, and oxygen on the airport (other than articles and materials that are, or are intended to be, aircraft cargo) including:
 - (a) Grounding and fire protection.
 - (b) Public protection.
 - (c) Control of access to storage areas.
 - (d) Marking and labeling storage tanks and tank trucks including identification of specific types of fuel octane designations?
 - (e) Fencing.
 - (f) Gates.
 - (g) Signs.

b. Data for Compliance with Operations Rules.

Describe the means and procedures to be used to comply with the operations rules.

9. TRAFFIC AND WIND DIRECTION INDICATORS (Section 139.53).

- a. Data for Airport Certification Eligibility.
 - Where are wind direction indicators located on the airport? Identify the type and indicate which ones are lighted for night operations.
 - (2) Is there a segmented circle traffic pattern indicator?
- b. Data for Compliance with Operations Rules.

Describe means and procedure to be used to inspect for deficiencies and corrective actions.

10. EMERCENCY PLAN (Section 139.55).

a. Data for Airport Certification Eligibility.

Under Section 139.33, the Emergency Plan must be included as part of the Airport Operations Manual.

b. Data for Compliance with Operations Rules.

Due to the importance of an Emergency Plan, a separate advisory circular (AC 150/5200-17) was issued February 1972. Table 1 of that advisory circular contains the requirements of the Airport Certification Program as it pertains to the Emergency Plan.

11. SELF-INSPECTION PROGRAM (Sections 139.57 and 139.91).

a. Data for Airport Certification Eligibility.

Describe fully the self-inspection program including frequency, personnel training, information dissemination, and corrective action procedures for unsafe conditions.

- b. Data for Compliance with Operations Rules.
 - Provide a checklist for use by airport personnel in performing daily (unless otherwise authorized) and other inspections of airport activities and facilities, noting deficiencies and corrective actions taken.
 - (2) Indicate the schedule in which inspections should be accomplished.

12. GROUND VEHICLES (Section 139.59).

- a. Data for Airport Certification Eligibility.
 - (1) What procedures and arrangements exist to assure the control of ground vehicles on the aircraft maneuvering areas?
 - (2) What ground vehicles are equipped with two-way radio communications with the control tower?
 - (3) How are airport ground vehicles controlled from the control tower when they are in the air operations areas?
 - (4) Are flagmen or traffic signals provided for contractors and other vehicles when crossing air operations areas?
 - (5) When there is no control tower, what prearranged signs or signals are used for the safe control of ground vehicles?
 - (6) Indicate on a map of the airport the designated routes for ground vehicles that are required to be on the air operations areas.
 - (7) Describe the means to be used to identify vehicles that have access to the air operations areas on the airport.
 - (8) Describe procedures and arrangements to be used for safe and orderly operations of ground vehicles in the air operations areas.
 - (9) Describe procedures to be used for escort vehicles and vehicles with two-way communications when operating in the air operations areas.

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b. Data for Compliance with Operations Rules.

Describe the means and procedures to be used to comply with the operations rules.

13. OBSTRUCTIONS (Sections 139.61 and 139.93).

- a. Data for Airport Certification Eligibility.
 - (1) Identify each object within your area of authority that is identified as an obstruction in FAR Part 77.
 - (2) Describe the marking and lighting of each of the obstructions.
- b. Data for Compliance with Operations Rules.

Describe the means and procedures to be used to comply with the operations rules, including how the conditions at time of certification are to be maintained.

14. PROTECTION OF NAVAIDS (Section 139.63).

- a. Data for Airport Certification Eligibility.
 - (1) What procedures are used to prevent the construction of facilities on the airport that would derogate the operations of a NAVAID?
 - (2) Describe procedures to be used to provide protection or assistance to the owner (if another person) for protection of the NAVAIDS located on the airport.
 - (3) Describe procedures to be used for monitoring construction programs on the airport to insure that they will not interfere with the operations of the NAVAIDS. Also, list the procedures for protection and restoration of power to the NAVAIDS when cables are damaged during construction.
- b. Data for Compliance with Operations Rules.

Describe the means and procedures to be used to comply with the operations rules.

15. PUBLIC PROTECTION (Section 139.65).

- a. Data for Airport Certification Eligibility.
 - (1) What procedures, devices, or obstacles are used to prevent inadvertent entry of persons or large domestic animals onto any air operations areas? (Under Section 139.65, compliance with any fencing requirement imposed under FAR Part 107 will meet the fencing requirement of this section as to persons and vehicles.)
 - (2) What part of the airport has perimeter fencing and what kind of fencing is used?
 - (3) Where are the gates located that provide safeguards against inadvertent entry to the air operations areas?
 - (4) Illustrate on a map those areas that are restricted from use by the general public.
- b. Data for Compliance with Operations Rules.

Describe the means and procedures to be used to comply with the operations rules.

BIRD HAZARD REDUCTION (Section 139.67).

- a. Data for Airport Certification Eligibility.
 - (1) What procedures are used for the prevention or removal of factors from the airport that attract or may attract birds?
 - (2) Indicate the nature of the existing conditions on the airport and the control techniques to be employed if birds are a problem, or show why birds are not considered a problem.
- b. Data for Compliance with Operations Rules.

Describe means and procedures to be used to comply with the operations rules.

17. AIRPORT CONDITION ASSESSMENT AND REPORTING (Section 139.69).

a. Data for Airport Certification Eligibility.

What procedures are used for identifying, assessing, and disseminating information to air carrier users of the airport in the following areas:

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- (1) Construction or maintenance work on pavement or safety areas?
- (2) Rough or wavy portions of pavement on safety areas?
- (3) The presence and depth of snow, slush, ice, or water on runways or taxiways?
- (4) The presence of snow drifted or piled on or next to runways or taxiways when the drifts or piles are of such a height as not in conformance with Section 139.69.
- (5) The presence of parked aircraft or other objects on or next to runways or taxiways?
- (6) The failure or irregular operation of all or part of the airport lighting system including the approach, threshold, runway, taxiway, and obstruction lights operated by the operator of the airport?
- (7) The presence of a large number of birds?
- b. Data for Compliance with Operations Rules.

Describe methods and procedures to be used to comply with the operations rules.

18. IDENTIFYING, MARKING, AND REPORTING CONSTRUCTION AND OTHER UNSERVICEABLE AREAS (Section 139.71).

- a. Data for Airport Certification Eligibility.
 - (1) How are unserviceable pavement and safety areas conspicuously marked and lighted?
 - (2) What provisions are made for identifying and marking the location of all utilities in construction areas that, if interrupted, could cause failure of a facility or NAVAID within the authority of the airport operator?
 - (3) What provisions are made for identifying and marking any areas on the airport adjacent to NAVAIDS that, if traversed, could cause emission of false signals or failure of the NAVAID?

- (4) What identifying or marking procedures are used on the airport to warn air carrier users of the airport of the existence of closed, deceptive, or hazardous construction areas or other unuseable areas or facilities?
- (5) Describe how construction equipment and construction roadways on the airport are to be marked and lighted when on or adjacent to aircraft maneuvering areas.
- (6) Show how information on closed, deceptive, or hazardous construction areas is to be disseminated to appropriate personnel on the airport and to the air carrier users of the airport.
- (7) Describe procedures for the routing and control of equipment, personnel, and vehicular traffic during periods of construction on the aircraft maneuvering areas of the airport.
- b. Data for Compliance with Operations Rules.

Describe methods and procedures to be used to comply with the operations rules.

APPENDIX 2. REFERENCE MATERIAL

- 1. FREE OF CHARGE PUBLICATIONS. The advisory circulars referenced below may be obtained free of charge from the Department of Transportation, Distribution Unit, TAD 484.3, Washington, D.C. 20590.
- 2. <u>COST PUBLICATIONS</u>. Those publications (advisory circulars and Federal Aviation Regulations) listed below with actual costs may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Make check or money order payable to the Superintendent of Documents; no C.O.D. orders will be accepted.
- 3. CROSS REFERENCES. The publications listed in paragraphs 4 through 18 have been arranged so that they correspond with those paragraphs in Appendix 1 to which they refer.
- 4. PAVEMENT AREAS (Sections 139.43 and 139.83).
 - a. AC 150/5320-6A, Changes 1, 2, and 3, Airport Paving.
 - AC 150/5330-2A, Runway/Taxiway Widths and Clearances for Airline Airports.
 - c. AC 150/5335-1A, Airport Design Standards Airports Served by Air Carriers Taxiways.
 - d. AC 150/5370-1A, Standard Specifications for Construction of Airports (\$3.50).
 - e. AC 150/5380-1, Airport Maintenance.
 - f. AC 150/5380-3A, Removal of Contaminants from Pavement Surfaces.
 - g. AC 150/5380-4, Ramp Operations During Periods of Snow and Ice Accumulation.
- 5. SAFETY AREAS (Section 139.45).
 - a. AC 150/5320-5B, Airport Drainage (\$1.00).
 - AC 150/5325-2B, Airport Design Standards Air Carrier Airports -Surface Gradient and Line of Sight.
 - c. AC 150/5330-2A, Runway/Taxiway Widths and Clearances for Airline Airports.

- d. AC 150/5335-1A, Airport Design Standards Airports Served by Air Carriers Taxiways.
- e. AC 150/5380-1, Airport Maintenance.
- f. FAR Part 1, Definitions and Abbreviations (Volume I, \$1.50).
- 6. MARKING AND LIGHTING RUNWAYS, THRESHOLDS, AND TAXIWAYS (Sections 139.47 and 139.87).
 - a. AC 70/7460-1, Obstruction Marking and Lighting.
 - AC 150/5200-7, Safety on Airports During Maintenance of Runway Lighting.
 - c. AC 150/5340-1C, Marking of Paved Areas on Airports.
 - d. AC 150/5340-4B, Installation Details for Runway Centerline and Touchdown Zone Lighting Systems.
 - e. AC 150/5340-5A, Segmented Circle Airport Marker System.
 - f. AC 150/5340-13A, High Intensity Runway Lighting System.
 - g. AC 150/5340-14B, Economy Approach Lighting Aids.
 - h. AC 150/5340-15A, Taxiway Edge Lighting System.
 - i. AC 150/5340-16B, Medium Intensity Runway Lighting System and Visual Approach Slope Indicators for Utility Airports.
 - j. AC 150/5340-17A, Standby Power for Non-FAA Airport Lighting Systems.
 - k. AC 150/5340-18, Taxiway Guidance System.
 - 1. AC 150/5340-19, Taxiway Centerline Lighting System
 - m. AC 150/5340-22, Change 1, Maintenance Guide for Determining Degradation and Cleaning of Centerline and Touchdown Zone Lights.
 - n. AC 150/5380-1, Airport Maintenance.
 - o. AC 150/5380-2A, Snow Removal Techniques Where In-Pavement Lighting Systems are Installed.
 - P. AC 150/5380-3A, Removal of Contaminants from Pavement Surfaces.

7. AIRPORT FIRE FIGHTING AND RESCUE EQUIPMENT AND SERVICE (Sections 139.49 and 139.89).

- a. AC 150/5210-7A, Aircraft Fire and Rescue Communications.
- AC 150/5210-8, Aircraft Fire Fighting and Rescue Personnel and Personnel Clothing.
- c. AC 150/5210-10, Airport Fire and Rescue Equipment Building Guide.
- d. AC 150/5210-12, Fire and Rescue Service for Certificated Airports.
- e. AC 150/5325-5A, Aircraft Data.

8. HANDLING AND STORING HAZARDOUS ARTICLES AND MATERIALS (Section 139.51).

- a. AC 20-20A, Flammability of Jet Fuels.
- b. AC 20-43B, Aircraft Fuel Control.
- c. AC 103-2, Information Guide for Air Carrier Handling of Radioactive Materials.
- d. AC 150/5200-17, Emergency Plan.
- e. AC 150/5230-3, Fire Prevention During Aircraft Fueling Operations.
- f. AC 150/5360-2, Airport Cargo Facilities.

TRAFFIC AND WIND DIRECTION INDICATORS (Section 139.53).

- a. AC 150/5340-5A, Segmented Circle Airport Marker System.
- b. AC 150/5345-27A, Specification for L-807 Eight-Foot and Twelve-Foot Unlighted or Externally Lighted Wind Cone Assemblies.

EMERGENCY PLAN (Section 139.55).

- a. AC 150/5200-13, Removal of Disabled Aircraft.
- b. AC 150/5200-17, Emergency Plan.

- c. AC 150/5210-2, Airport Emergency Medical Facilities and Services.
- d. AC 150/5340-17A, Standby Power for Non-FAA Airport Lighting Systems.

11. SELF-INSPECTION PROGRAM (Sections 139.57 and 139.91).

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

12. GROUND VEHICLES (Section 139.59).

- a. AC 150/5210-5, Painting, Marking, and Lighting of Vehicles Used on an Airport.
- AC 150/5335-1A, Airport Design Standards Airports Served by Air Carriers - Taxiways.
- AC 150/5370-2, Safety on Airports During Construction Activity.

13. OBSTRUCTIONS (Sections 139.61 and 139.93).

- a. AC 70/7460-1A, Obstruction Marking and Lighting.
- b. AC 150/5310-3, FAA Order 5310.2, Relocating Thresholds Due to Obstructions at Existing Runways.
- FAR Part 77, Objects Affecting Navigable Airspace (Volume XI, \$2.75).

14. PROTECTION OF NAVAIDS (Section 139.63).

- a. AC 150/5300-2B, Airport Design Standards Site Requirements for Terminal Navigational Facilities.
- b. AC 150/5340-1C, Marking of Paved Areas on Airports.

15. PUBLIC PROTECTION (Section 139.65).

AC 150/5335-2, Airport Aprons.

16. BIRD HAZARD REDUCTION (Section 139.67).

- a. AC 150/5200-3A, Bird Hazards to Aircraft.
- b. AC 150/5200-8, Use of Chemical Controls to Repel Flocks of Birds at Airports.

c. AC 150/5200-9, Bird Reactions and Scaring Devices.

17. AIRPORT CONDITION ASSESSMENT AND REPORTING (Section 139.69).

- a. AC 150/5380-1, Airport Maintenance.
- b. AC 150/5380-2A, Snow Removal Techniques Where In-Pavement Lighting Systems are Installed.
- c. AC 150/5380-4, Ramp Operations During Periods of Snow and Ice Accumulation.

18. <u>IDENTIFYING, MARKING, AND REPORTING CONSTRUCTION AND OTHER UNSERVICEABLE AREAS (Section 139.71)</u>.

- a. AC 150/5200-5, Considerations for the Improvement of Airport Safety.
- b. AC 150/5200-7, Safety on Airports During Maintenance of Runway Lighting.
- c. AC 150/5340-1C, Marking of Paved Areas on Airports.
- d. AC 150/5370-2, Safety on Airports During Construction Activity.

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APPENDIX 3. FAA FORM 5280-1, AIRPORT OPERATING CERTIFICATE APPLICATION

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AIRPORT OPERATING CERTIFICATE

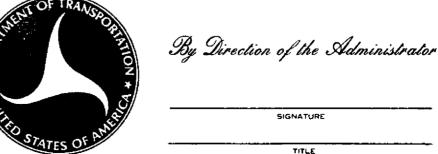
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has met the requirements of the Federal Aciation Act of 1958, as amended, and the rules, regulations, and standards prescribed thereunder for the issuance of this certificate, and is hereby authorized to operate às a certificated airport in accordance with and subject to said Act and the rules, regulations, and standards prescribed thereunder, including but not limited to 14 CFR Part 139, and any additional terms, conditions, and limitations contained herein.

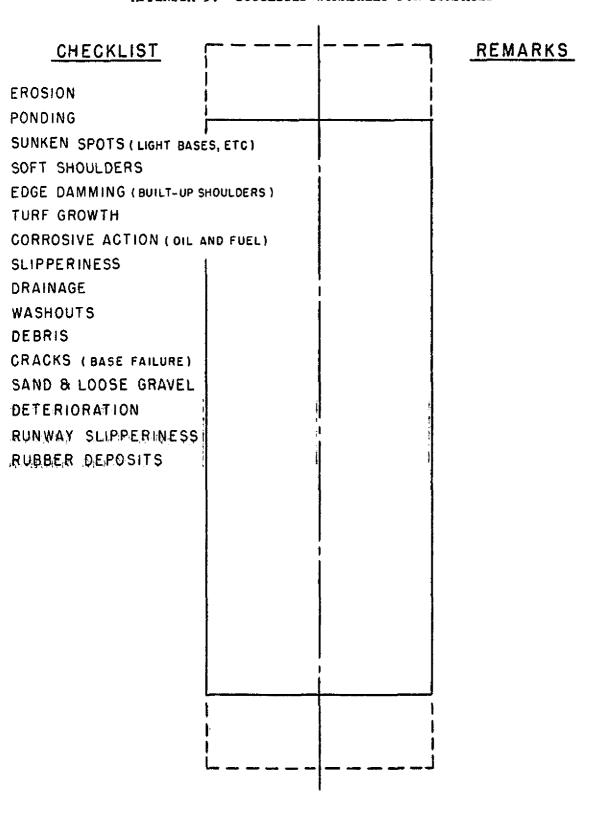
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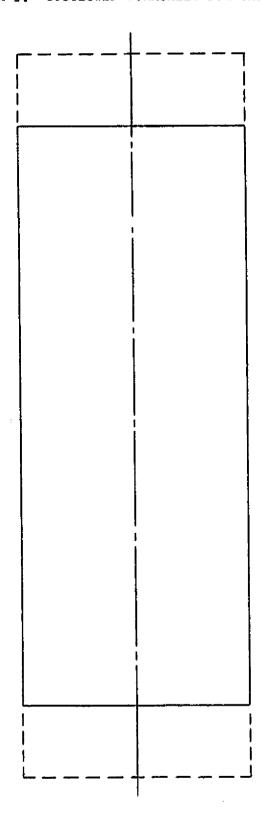


APPENDIX 5. SUGGESTED WORKSHEET FOR SURFACES

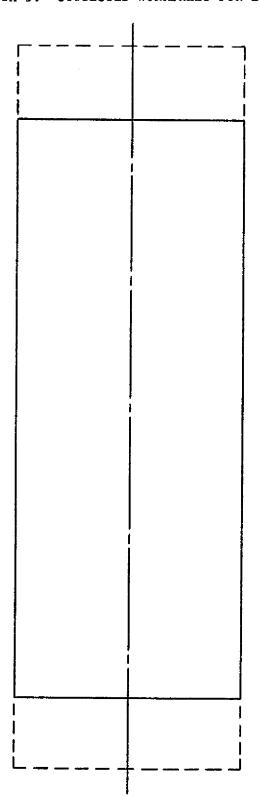


APPENDIX 5. SUGGESTED WORKSHEET FOR SAFETY AREAS

Note size of the safety areas.



APPENDIX 5. SUGGESTED WORKSHEET FOR LIGHTING



APPENDIX Ç, SUGGESTED WORKSHEET FOR VEHICLES, PERSONNEL, AND EXTINGUISHING AGENTS

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16 Jun 72



ADVISORY CIRCULAR

10A TECHNICAL UNIT

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

APR 28 1986

SUBJECT: AIRPORT OPERATIONS MANUAL

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1. PURPOSE. This advisory circular primarily sets forth guidelines to assist airport operators in developing an Airport Operations Manual in compliance with the requirements of Federal Aviation Regulation (FAR) Part 139. This circular also provides guidance on submission of the Airport Operating Certificate Application. This guidance is presented in a way that should be meaningful to the operator of both the small as well as the more complex airport.

2. REFERENCES.

- a. Federal Aviation Regulation Part 139, Certification and Operations: Land Airports Serving CAB-Certificated Scheduled Air Carriers Operating Large Aircraft (Other Than Helicopters), Volume X, may be obtained from the U.S. Government Printing Office, Washington, D.C. 20402. Make check or money order for \$4.50, payable to the Superintendent of Documents; no C.O.D. orders are accepted.
- b. Other advisory circulars are listed in Appendix 2 as reference material under the individual areas to which they apply.
- 3. ADDITIONAL COPIES. Copies of this advisory circular can be obtained from the Department of Transportation, Distribution Unit, TAD-484.3, Washington, D.C. 20590.

Chester G. Bowers

Director, Airports Service

16 Jun 72 AC 150/5280-1

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CHAPTER 1. INTRODUCTION

1. PURPOSE OF THE AIRPORT OPERATIONS MANUAL.

- a. The Airport Operations Manual is a working tool in the day-to-day operations of the airport for the enhancement of safety.
- b. The Airport Operations Manual provides a means for the airport operator to report to the Federal Aviation Administration on:
 - (1) The conditions at his airport for those items required for certification eligibility in FAR Part 139; and
 - (2) The methods of operation that he expects to use to meet the continuing requirements of airport certification.

2. OBJECTIVE OF THIS ADVISORY CIRCULAR.

- a. Explain the operation of the Airport Certification Program.
- b. Provide guidance in submitting the data required in the Airport Operations Manual for initial issuance of the Airport Operating Certificate.
- c. Provide guidance on the methods and procedures to be used to meet the continuing requirements of the certification program after initial issuance of the certificate.

3. BACKGROUND OF THE CERTIFICATION PROGRAM.

- a. The Federal Aviation Act of 1958 was amended on 21 May 1970 by adding Section 612, paragraph (a) of which provides: "(a) The Administrator is empowered to issue airport operating certificates to airports serving air carriers certificated by the Civil Aeronautics Board and to establish minimum safety standards for the operation of such airports." The FAA issued rules for airport certification in FAR Part 139.
- b. Section 612(b), as amended on 27 November 1971 by Public Law 92-174, provides: "(b) Any person desiring to operate an airport serving air carriers certificated by the Civil Aeronautics Board may file with the Administrator an application for an airport operating certificate. If the Administrator finds, after investigation, that such person is properly and adequately equipped and able to conduct a safe operation in accordance with the requirements of the Act and the rules, regulations, and standards prescribed

thereunder, he shall issue an airport operating certificate to such person. Each airport operating certificate shall prescribe such terms, conditions, and limitations as are reasonably necessary to assure safety in air transportation. Unless the Administrator determines that it would be contrary to the public interest, such terms, conditions, and limitations shall include but not be limited to terms, conditions, and limitations relating to the operation and maintenance of adequate safety equipment, including fire fighting and rescue equipment capable of rapid access to any portion of the airport used for the landing, takeoff, or surface maneuvering of aircraft."

- c. An amendment to Section 610 of the Act further provides that it shall be unlawful "(8) For any person to operate an airport serving air carriers certificated by the Civil Aeronautics Board without an airport operating certificate, or in violation of the terms of any such certificate." The compliance date originally was 21 May 1972. On 27 November 1971, Public Law 92-174 extended the compliance date to 21 May 1973.
- d. Section 139.31 of FAR Part 139 requires each applicant for an Airport Operating Certificate to prepare and submit for approval by the Administrator its Airport Operations Manual with its application for certification. The manual and the application are submitted to the FAA Airports field office, which in each case is the appropriate regional office.

CHAPTER 2. GENERAL

4. APPLICABILITY.

- a. Federal Aviation Regulation Part 139 applies to land airports regularly serving scheduled air carriers that hold certificates of public convenience and necessity issued by the Civil Aeronautics Board and that operate large aircraft (other than helicopters) into those airports.
- b. Large aircraft are defined as those aircraft of more than 12,500 pounds maximum certificated takeoff weight.

5. INSPECTION PROCEDURES.

- a. The airport operator, when inspecting his airport to gather the data to be used by the FAA in determining his eligibility for certification, should consider all of the items listed under the heading, "Data for Airport Certification Eligibility," found in items 4 through 18 of Appendix 1 to this advisory circular.
- b. The FAA personnel will use the data submitted in its determination as to whether the certification requirements have been met. This data may also be used to review the condition of the airport prior to performing a physical inspection of the facilities. The FAA personnel may perform inspections at any time to assure continued compliance.

6. APPLICATION FOR CERTIFICATION.

- the airport operator and FAA personnel are encouraged in order to assist in the preparation of the Airport Operations Manual and the application form, and to insure that there is a full understanding of the requirements of FAR Part 139. Procedures for inspecting the airport may also be reviewed.
- b. Submission of Application. An application for issuance of a certificate is made on FAA Form 5280-1, Airport Operating Certificate Application, and submitted to the Airports Division of the regional office in whose area the applicant proposes to establish or has established its airport. An applicant is required by Section 139.13 of FAR Part 139 to submit its application no later than 120 days after the effective date of the regulation. An applicant whose airport is not in operation before the effective date of the regulation must submit its application at least 120 days before the date of intended operations. The

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application form, obtainable from FAA Airports field offices, is shown in Appendix 3 to this advisory circular. (This same form may also be used in connection with applications for exemption and amendment to the Airport Operations Manual and certificate.) The application and the Airport Operations Manual will be submitted to the appropriate Airports Division of the regional office. This FAA office, after receiving the application and the Airport Operations Manual, will then review the manual and, if necessary, contact the applicant to make whatever arrangements are needed to complete, correct, or clarify any submitted material.

c. Distribution of Application and Airport Operations Manual. The original and three copies of the application form, along with one copy of the Airport Operations Manual, will be submitted to the appropriate FAA Airport Division of the regional office. The receiving office will acknowledge receipt and complete distribution as necessary. The copy of the manual will remain in the appropriate FAA Airports Division of the regional office.

7. AIRPORT OPERATING CERTIFICATE.

- a. General. An Airport Operating Certificate is issued when the Administrator finds, after investigation, that the applicant's airport is properly and adequately equipped to conduct a safe operation in accordance with FAR Part 139 and approves the Airport Operations Manual which is submitted with the application. If it is found that some requirement is not met, the applicant is advised in writing by the FAA of the reasons for not issuing an Airport Operating Certificate. Deficiencies noted in the application submittal or in the inspections should be corrected and a review of those items not meeting the regulation will be conducted as soon as practical.
- b. <u>Content</u>. The Airport Operating Certificate contains the name of the airport, the owner, the operator, airport limitations, and any other item the FAA Administrator determines is necessary to cover a particular situation (Appendix 4).

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CHAPTER 3. PREPARATION GUIDANCE

8. CONTENT.

under Section 139.33 of FAR Part 139, the Airport Operations Manual must include all of the information necessary to show:

- Compliance and the means and procedures, in detail, used to comply with each certification rule prescribed by Subpart D.
- (2) The means and procedures, in detail, to be used after certification to comply with each operations rule prescribed by Subpart E. In this connection, note that Section 139.81 (Operations rules: General) provides that "Each person operating an airport for which an airport operating certificate has been issued under Subpart B of this Part shall--
 - (a) "Operate, maintain, and provide facilities, equipment, systems, and procedures at least equal in condition, quality, and quantity to the standards currently required for the issue of the airport operating certificate for that airport;
 - (b) "Have sufficient personnel available, and require that personnel, to comply with its approved airport operations manual in the performance of their duties; and
 - (c) "Comply with the additional rules of this subpart."
- b. Section 139.33(b) through (h) requires the inclusion of additional specified material in the manual and provides requirements as to format. Paragraphs c through h below refer to these items.
- c. Under Section 139.33(b) and (c):
 - (1) Duties and responsibilities of airport personnel should be explained in sufficient detail for airport employees to effectively accomplish those assigned duties and responsibilities.
 - (2) Official job titles of key airport employees should be listed along with a brief description of their responsibilities. An organizational chart should be included showing operational lines of succession to insure that there is no breakdown in accomplishing the required tasks.

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d. Under Section 139.33(d):

(1) Maps, charts, or other illustrations included in the manual will assist in the presentation of information. Maps and charts used to show locations of airport facilities may utilize existing items such as the Airport Layout Plan (ALP), Obstruction and Evaluation Chart, and the FAA Airport Master Record. In most cases, a single map or chart may be used to support two or more requirements.

- (2) Gridmaps should be used for locating specific areas such as maintenance, construction, and air operations areas.
- (3) Terrain features should be shown. Airport familiarization should include all of the areas that could be a problem in providing airport fire fighting and rescue services. Of primary concern should be the approach areas to the runways and access to these areas.
- (4) The air operations areas should be shown including runway and taxiway systems, vehicle lanes transiting air operations areas, and aircraft parking areas. The location of NAVAID facilities should also be shown.
- e. Under Section 139.33(e), the existence and location of a current utility layout plan must be indicated. However, they will be of assistance if also made a part of the manual. The plans should show the most significant utility facilities as appropriate, such as underground lines for water (including fire hydrant system), electricity, sewage, and fuel. These plans would be beneficial in briefing contractor personnel for the prevention of the interruption of these primary services during subsequent periods of construction.
- f. Under Section 139.33(h), when an exemption from compliance with safety equipment requirements is granted under Section 139.19 of FAR Part 139, the manual must show the exemption.

9. SCOPE.

a. It is anticipated that the Airport Operations Manual will be utilized on a continuing basis by the respective airport owners and their personnel in carrying out daily activities. Therefore, the content of the manual need not be limited only to those items contained in FAR Part 139. If additional items are included in the manual for the convenience of the applicant, as they pertain to airport certification, the FAA will only hold the applicant responsible for the requirements of FAR Part 139.

b. The difference in operational requirements between high activity and low activity airports is recognized. Therefore, the Airport Operations Manual for a low activity airport can be expected to be not as comprehensive in scope as the manual for a high activity airport.

10. PRESENTATION OF CONTENTS.

- a. Recognizing the individuality of the many airports to be certificated, the Airport Operations Manual may be presented in a format best suited to the characteristics and operational requirements of the operator's airport.
- b. The manual should be presented in such a way that it is easy to read and maintain. It is suggested that a three-ring, hard-back binder be used that is serviceable and durable. The three-ring binder will make manual revisions easier to accomplish.
- c. Under Section 139.33(g) of FAR Part 139, any revision to the manual pertaining to the items required by the rule must be dated. This date should be placed on the lower portion of the revised page.
- d. The manual should be properly indexed and tabbed so each required section can be readily identified. The portions of the manual that are required by FAR Part 139 should be consolidated and presented as a separate and distinct part. This will assist airport management in compliance and the certification inspector in assessment of compliance. Only the FAR Part 139 portions should be submitted to the FAA for approval and dating.
- e. It is suggested that separate sections within the manual have color coded tabs for easy identification.
- f. Under each format item in Appendix 1 are suggested areas that should be covered in the manual. These areas are not all inclusive but are intended to provide broad guidance so airport operators will have flexibility in developing their own manuals.
- g. Suggested worksheets are provided in Appendix 5 for recording data.

APPENDIX 1. SUGGESTED AIRPORT OPERATIONS MANUAL FORMAT

1. INTRODUCTION.

- a. Name and location of airport.
- b. Mailing address of airport manager or operator.

2. PERSONNEL.

- a. List of key personnel and job titles.
- b. Brief description of functions.
- c. Organizational chart showing operational lines of succession.

3. AIRPORT FAMILIARIZATION.

- a. Brief description of airport and primary activities,
 e.g., provide services to air carrier, general aviation
 aircraft, etc.
- b. Maps and charts showing such things as general layout of airport, air operations areas, terrain features, and runway and taxiway systems.

4. PAVEMENT AREAS (Sections 139.43 and 139.83).

- a. Data for Airport Certification Eligibility.
 - (1) Indicate on a worksheet the location of all pavement lips (runways, taxiways, and aprons) and the maximum vertical dimension between full strength pavement and abutting shoulder.
 - (2) Identify types of surface for each runway, taxiway, and apron.
- b. Data for Compliance with Operations Rules
 - (1) Describe the procedures to be used to inspect the pavement areas for discrepancies and corrective actions.

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Appendix 1

(2) Describe the methods to be used to notify appropriate personnel of any discrepancies and fix the responsibility for inspections and repair.

SAFETY AREAS (Sections 139.45 and 139.85).

- a. Data for Airport Certification Eligibility.
 - (1) Indicate the types and sizes of safety areas on a worksheet. Indicate size of landing strip if constructed before 18 February 1970.
 - (2) Indicate the function of each object in the safety areas, its height above ground, and whether constructed on frangible mounted supporting structures.
 - (3) Describe type and condition of storm sewer system used to keep water off safety areas, or describe natural topography allowing water runoff.
- b. Data for Compliance with Operations Rules.
 - (1) Describe procedures to be used to inspect the safety areas for discrepancies and corrective actions.
 - (2) Describe procedures to be used to maintain the drainage system.
 - (3) Describe procedures to be used for snow removal and positioning, and notification procedures if unable to promptly comply.

6. MARKING AND LIGHTING RUNWAYS, THRESHOLDS, AND TAXIWAYS (Sections 139.47 and 139.87).

- a. Data for Airport Certification Eligibility.
 - (1) Indicate which of the following operable lighting systems are installed on surfaces used by the air carrier aircraft and date of last inspection:
 - (a) Runway edge: High intensity?
 Medium intensity?
 - (b) Runway centerline.

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- (c) Taxiway edge.
- (d) Taxiway centerline.
- (e) Touchdown zone.
- (f) Apron edge taxiing lights.
- (g) Ramps.
- (h) Category II.
- (i) Category III (a, b, or c).
- (j) Approach lights and type.
- (k) Refueling areas.
- (1) Runway thresholds.
- (m) Rotating airport beacon.
- (n) Wind indicators.
- (o) Obstruction lights.
- (p) SAVASI.
- (q) REILS.
- (r) VASI (type).
- (a) MALS.
- (t) Other.
- (u) Guidance signs.
- (2) Describe location of apron, vehicle parking, roadway, or building illumination lighting which may blind or hinder the control tower or aircraft operations.

- (3) Identify each type and condition of marking used for:
 - (a) Runway centerline.
 - (b) Runway threshold.
 - (c) Runway touchdown zone.
 - (d) Runway designation.
 - (e) Taxiway centerline.
 - (f) ILS critical areas.
 - (g) Holding lines for CAT II operations and for taxiways.
- b. Data for Compliance with Operations Rules.
 - (1) Describe procedures to be used to inspect and correct discrepancies for the lighting of runways, thresholds, and taxiways and for markings listed in a(3) above.
 - (2) If any installed lights become inoperable, describe the circumstances and the procedures for public notification.

7. AIRPORT FIRE FIGHTING AND RESCUE EQUIPMENT AND SERVICE (Sections 139.49 and 139.89).

- a. Data for Airport Certification Eligibility.
 - (1) What is the average number of daily scheduled departures of each type of CAB-certificated air carrier aircraft?
 - (2) Provide a list of the fire fighting and rescue equipment to be used to meet the certification requirements including the results of the response time as determined by test runs. Use the relevant worksheet in Appendix 5 as a reference. (A complete list of fire fighting equipment would be beneficial.)
 - (3) Where are the required fire fighting vehicles positioned in order to meet the required response time?
 - (4) How are the vehicles painted, marked, and lighted (emergency lights)?

- (5) What cover (type of housing) is provided for vehicles subject to prolonged temperatures below 33°F?
- (6) What type of communications with emergency vehicles are used?
- (7) How are the fire fighting/rescue personnel alerted for an emergency?
- (8) Indicate if adequate protective clothing is available so personnel may operate the fire fighting equipment at the required 85 percent discharge rate.
- (9) What is the familiarization program for new fire fighting personnel?
- (10) Show on a gridmap the location of the fire station on the airport and primary traffic routes for the fastest response to all air operations areas.
- (11) List the hours of scheduled operations by certificated air carriers operating large aircraft and the duty hours of the fire fighting and rescue personnel.
- (12) If the fire fighting equipment and services are provided by other than the airport operator, provide the mutual-aid agreements and the location of such sources of service.

 The location should be shown on a vicinity (city, county, etc.) map.
- b. Data for Compliance with Operations Rules.
 - (1) Describe procedures to be used for testing alarm, alerting fire department such as who gives the alarm, how is the alarm transmitted, who receives the alarm, and explain fire department response procedures.
 - (2) Indicate the location of training records including training procedures, in-station classroom instruction, schools attended by fire fighters for aircraft fire fighting, available training aids such as films, charts, and number and size of hot fire drills.
 - (3) List the equipment to be used to comply with the operations rules.

(4) Describe procedures for maintaining the fire fighting and rescue vehicle to include replacement equipment and notification methods to air carrier users when the equipment becomes inoperable.

8. HANDLING AND STORING HAZARDOUS ARTICLES AND MATERIALS (Section 139.51).

- a. Data for Airport Certification Eligibility.
 - (1) Are personnel designated to receive and handle hazardous articles and materials in those cases where the airport operator is designated as the cargo handling agent?
 - (2) If you are the cargo handling agent, what controls and procedures are there to assure that the cargo shipped can be handled and stored safely, including any special handling procedures required for safety?
 - (3) Where are the special areas on the airport for the storage of flammable liquids and solids, corrosive liquids, compressed gases, and magnetized or radioactive materials?
 - (4) What procedures and devices are used for the safe storing, dispersing, and otherwise handling of fuel, lubricants, and oxygen on the airport (other than articles and materials that are, or are intended to be, aircraft cargo) including:
 - (a) Grounding and fire protection.
 - (b) Public protection.
 - (c) Control of access to storage areas.
 - (d) Marking and labeling storage tanks and tank trucks including identification of specific types of fuel octane designations?
 - (e) Fencing.
 - (f) Gates.
 - (g) Signs.

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b. Data for Compliance with Operations Rules.

Describe the means and procedures to be used to comply with the operations rules.

9. TRAFFIC AND WIND DIRECTION INDICATORS (Section 139.53).

- a. Data for Airport Certification Eligibility.
 - (1) Where are wind direction indicators located on the airport? Identify the type and indicate which ones are lighted for night operations.
 - (2) Is there a segmented circle traffic pattern indicator?
- b. Data for Compliance with Operations Rules.

Describe means and procedure to be used to inspect for deficiencies and corrective actions.

EMERGENCY PLAN (Section 139.55).

a. Data for Airport Certification Eligibility.

Under Section 139.33, the Emergency Plan must be included as part of the Airport Operations Manual.

b. Data for Compliance with Operations Rules.

Due to the importance of an Emergency Plan, a separate advisory circular (AC 150/5200-17) was issued February 1972. Table 1 of that advisory circular contains the requirements of the Airport Certification Program as it pertains to the Emergency Plan.

11. SELF-INSPECTION PROGRAM (Sections 139.57 and 139.91).

a. Data for Airport Certification Eligibility.

Describe fully the self-inspection program including frequency, personnel training, information dissemination, and corrective action procedures for unsafe conditions.

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- b. Data for Compliance with Operations Rules.
 - Provide a checklist for use by airport personnel in performing daily (unless otherwise authorized) and other inspections of airport activities and facilities, noting deficiencies and corrective actions taken.
 - (2) Indicate the schedule in which inspections should be accomplished.

12. GROUND VEHICLES (Section 139.59).

- a. Data for Airport Certification Eligibility.
 - (1) What procedures and arrangements exist to assure the control of ground vehicles on the aircraft maneuvering areas?
 - (2) What ground vehicles are equipped with two-way radio communications with the control tower?
 - (3) How are airport ground vehicles controlled from the control tower when they are in the air operations areas?
 - (4) Are flagmen or traffic signals provided for contractors' and other vehicles when crossing air operations areas?
 - (5) When there is no control tower, what prearranged signs or signals are used for the safe control of ground vehicles?
 - (6) Indicate on a map of the airport the designated routes for ground vehicles that are required to be on the air operations areas.
 - (7) Describe the means to be used to identify vehicles that have access to the air operations areas on the airport.
 - (8) Describe procedures and arrangements to be used for safe and orderly operations of ground vehicles in the air operations areas.
 - (9) Describe procedures to be used for escort vehicles and vehicles with two-way communications when operating in the air operations areas.

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b. Data for Compliance with Operations Rules.

Describe the means and procedures to be used to comply with the operations rules.

13. OBSTRUCTIONS (Sections 139.61 and 139.93).

- a. Data for Airport Certification Eligibility.
 - (1) Identify each object within your area of authority that is identified as an obstruction in FAR Part 77.
 - (2) Describe the marking and lighting of each of the obstructions.
- b. Data for Compliance with Operations Rules.

Describe the means and procedures to be used to comply with the operations rules, including how the conditions at time of certification are to be maintained.

14. PROTECTION OF NAVAIDS (Section 139.63).

- a. Data for Airport Certification Eligibility.
 - (1) What procedures are used to prevent the construction of facilities on the airport that would derogate the operations of a NAVAID?
 - (2) Describe procedures to be used to provide protection or assistance to the owner (if another person) for protection of the NAVAIDS located on the airport.
 - (3) Describe procedures to be used for monitoring construction programs on the airport to insure that they will not interfere with the operations of the NAVAIDS. Also, list the procedures for protection and restoration of power to the NAVAIDS when cables are damaged during construction.
- b. Data for Compliance with Operations Rules.

Describe the means and procedures to be used to comply with the operations rules.

15. PUBLIC PROTECTION (Section 139.65).

- Data for Airport Certification Eligibility.
 - (1) What procedures, devices, or obstacles are used to prevent inadvertent entry of persons or large domestic animals onto any air operations areas? (Under Section 139.65, compliance with any fencing requirement imposed under FAR Part 107 will meet the fencing requirement of this section as to persons and vehicles.)
 - (2) What part of the airport has perimeter fencing and what kind of fencing is used?
 - (3) Where are the gates located that provide safeguards against inadvertent entry to the air operations areas?
 - (4) Illustrate on a map those areas that are restricted from use by the general public.
- b. Data for Compliance with Operations Rules.

Describe the means and procedures to be used to comply with the operations rules.

16. BIRD HAZARD REDUCTION (Section 139.67).

- a. Data for Airport Certification Eligibility.
 - (1) What procedures are used for the prevention or removal of factors from the airport that attract or may attract birds?
 - (2) Indicate the nature of the existing conditions on the airport and the control techniques to be employed if birds are a problem, or show why birds are not considered a problem.
- b. Data for Compliance with Operations Rules.

Describe means and procedures to be used to comply with the operations rules.

17. AIRPORT CONDITION ASSESSMENT AND REPORTING (Section 139.69).

Data for Airport Certification Eligibility.

What procedures are used for identifying, assessing, and disseminating information to air carrier users of the airport in the following areas:

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- (1) Construction or maintenance work on pavement or safety areas?
- (2) Rough or wavy portions of pavement on safety areas?
- (3) The presence and depth of snow, slush, ice, or water on runways or taxiways?
- (4) The presence of snow drifted or piled on or next to runways or taxiways when the drifts or piles are of such a height as not in conformance with Section 139.69.
- (5) The presence of parked aircraft or other objects on or next to runways or taxiways?
- (6) The failure or irregular operation of all or part of the airport lighting system including the approach, threshold, runway, taxiway, and obstruction lights operated by the operator of the airport?
- (7) The presence of a large number of birds?
- b. Data for Compliance with Operations Rules.

Describe methods and procedures to be used to comply with the operations rules.

- 18. IDENTIFYING, MARKING, AND REPORTING CONSTRUCTION AND OTHER UNSERVICEABLE AREAS (Section 139.71).
 - a. Data for Airport Certification Eligibility.
 - (1) How are unserviceable pavement and safety areas conspicuously marked and lighted?
 - (2) What provisions are made for identifying and marking the location of all utilities in construction areas that, if interrupted, could cause failure of a facility or NAVAID within the authority of the airport operator?
 - (3) What provisions are made for identifying and marking any areas on the airport adjacent to NAVAIDS that, if traversed, could cause emission of false signals or failure of the NAVAID?

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- (4) What identifying or marking procedures are used on the airport to warn air carrier users of the airport of the existence of closed, deceptive, or hazardous construction areas or other unuseable areas or facilities?
- (5) Describe how construction equipment and construction roadways on the airport are to be marked and lighted when on or adjacent to aircraft maneuvering areas.
- (6) Show how information on closed, deceptive, or hazardous construction areas is to be disseminated to appropriate personnel on the airport and to the air carrier users of the airport.
- (7) Describe procedures for the routing and control of equipment, personnel, and vehicular traffic during periods of construction on the aircraft maneuvering areas of the airport.
- b. Data for Compliance with Operations Rules.

Describe methods and procedures to be used to comply with the operations rules.

APPENDIX 2. REFERENCE MATERIAL

- 1. FREE OF CHARGE PUBLICATIONS. The advisory circulars referenced below may be obtained free of charge from the Department of Transportation, Distribution Unit, TAD 484.3, Washington, D.C. 20590.
- 2. <u>COST PUBLICATIONS</u>. Those publications (advisory circulars and Federal Aviation Regulations) listed below with actual costs may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Make check or money order payable to the Superintendent of Documents; no C.O.D. orders will be accepted.
- 3. CROSS REFERENCES. The publications listed in paragraphs 4 through 18 have been arranged so that they correspond with those paragraphs in Appendix 1 to which they refer.
- 4. PAVEMENT AREAS (Sections 139.43 and 139.83).
 - a. AC 150/5320-6A, Changes 1, 2, and 3, Airport Paving.
 - b. AC 150/5330-2A, Runway/Taxiway Widths and Clearances for Airline Airports.
 - c. AC 150/5335-1A, Airport Design Standards Airports Served by Air Carriers Taxiways.
 - d. AC 150/5370-1A, Standard Specifications for Construction of Airports (\$3.50).
 - e. AC 150/5380-1, Airport Maintenance.
 - f. AC 150/5380-3A, Removal of Contaminants from Pavement Surfaces.
 - g. AC 150/5380-4, Ramp Operations During Periods of Snow and Ice Accumulation.
- 5. SAFETY AREAS (Section 139.45).
 - a. AC 150/5320-5B, Airport Drainage (\$1.00).
 - b. AC 150/5325-2B, Airport Design Standards Air Carrier Airports Surface Gradient and Line of Sight.
 - c. AC 150/5330-2A, Runway/Taxiway Widths and Clearances for Airline Airports.

- d. AC 150/5335-1A, Airport Design Standards Airports Served by Air Carriers Taxiways.
- e. AC 150/5380-1, Airport Maintenance.
- f. FAR Part 1, Definitions and Abbreviations (Volume I, \$1.50).
- 6. MARKING AND LIGHTING RUNWAYS, THRESHOLDS, AND TAXIWAYS (Sections 139.47 and 139.87).
 - a. AC 70/7460-1, Obstruction Marking and Lighting.
 - AC 150/5200-7, Safety on Airports During Maintenance of Runway Lighting.
 - c. AC 150/5340-1C, Marking of Paved Areas on Airports.
 - d. AC 150/5340-4B, Installation Details for Runway Centerline and Touchdown Zone Lighting Systems.
 - e. AC 150/5340-5A, Segmented Circle Airport Marker System.
 - f. AC 150/5340-13A, High Intensity Runway Lighting System.
 - g. AC 150/5340-14B, Economy Approach Lighting Aids.
 - h. AC 150/5340-15A, Taxiway Edge Lighting System.
 - i. AC 150/5340-16B, Medium Intensity Runway Lighting System and Visual Approach Slope Indicators for Utility Airports.
 - j. AC 150/5340-17A, Standby Power for Non-FAA Airport Lighting Systems.
 - k. AC 150/5340-18, Taxiway Guidance System.
 - 1. AC 150/5340-19, Taxiway Centerline Lighting System
 - m. AC 150/5340-22, Change 1, Maintenance Guide for Determining Degradation and Cleaning of Centerline and Touchdown Zone Lights.
 - n. AC 150/5380-1, Airport Maintenance.
 - o. AC 150/5380-2A, Snow Removal Techniques Where In-Pavement Lighting Systems are Installed.
 - p. AC 150/5380-3A, Removal of Contaminants from Pavement Surfaces.

7. AIRPORT FIRE FIGHTING AND RESCUE EQUIPMENT AND SERVICE (Sections 139.49 and 139.89).

- a. AC 150/5210-7A, Aircraft Fire and Rescue Communications. .
- b. AC 150/5210-8, Aircraft Fire Fighting and Rescue Personnel and Personnel Clothing.
- c. AC 150/5210-10, Airport Fire and Rescue Equipment Building Guide.
- d. AC 150/5210-12, Fire and Rescue Service for Certificated Airports.
- e. AC 150/5325-5A, Aircraft Data.

8. HANDLING AND STORING HAZARDOUS ARTICLES AND MATERIALS (Section 139.51).

- a. AC 20-20A, Flammability of Jet Fuels.
- b. AC 20-43B, Aircraft Fuel Control.
- c. AC 103-2, Information Guide for Air Carrier Handling of Radioactive Materials.
- d. AC 150/5200-17, Emergency Plan.
- e. AC 150/5230-3, Fire Prevention During Aircraft Fueling Operations.
- f. AC 150/5360-2, Airport Cargo Facilities.

9. TRAFFIC AND WIND DIRECTION INDICATORS (Section 139.53).

- a. AC 150/5340-5A, Segmented Circle Airport Marker System.
- b. AC 150/5345-27A, Specification for L-807 Eight-Foot and Twelve-Foot Unlighted or Externally Lighted Wind Cone Assemblies.

10. EMERGENCY PLAN (Section 139.55).

- a. AC 150/5200-13, Removal of Disabled Aircraft.
- b. AC 150/5200-17, Emergency Plan.

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- AC 150/5210-2, Airport Emergency Medical Facilities and Services.
- d. AC 150/5340-17A, Standby Power for Non-FAA Airport Lighting Systems.
- 11. SELF-INSPECTION PROGRAM (Sections 139.57 and 139.91).

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

- 12. GROUND VEHICLES (Section 139.59).
 - a. AC 150/5210-5, Painting, Marking, and Lighting of Vehicles Used on an Airport.
 - AC 150/5335-1A, Airport Design Standards Airports Served by Air Carriers - Taxiways.
 - c. AC 150/5370-2, Safety on Airports During Construction Activity.
- 13. OBSTRUCTIONS (Sections 139.61 and 139.93).
 - a. AC 70/7460-1A, Obstruction Marking and Lighting.
 - b. AC 150/5310-3, FAA Order 5310.2, Relocating Thresholds Due to Obstructions at Existing Runways.
 - c. FAR Part 77, Objects Affecting Navigable Airspace (Volume XI, \$2.75).
- PROTECTION OF NAVAIDS (Section 139.63).
 - a. AC 150/5300-2B, Airport Design Standards Site Requirements for Terminal Navigational Facilities.
 - b. AC 150/5340-1C, Marking of Paved Areas on Airports.
- 15. PUBLIC PROTECTION (Section 139.65).

AC 150/5335-2, Airport Aprons.

- 16. BIRD HAZARD REDUCTION (Section 139.67).
 - a. AC 150/5200-3A, Bird Hazards to Aircraft.
 - b. AC 150/5200-8, Use of Chemical Controls to Repel Flocks of Birds at Airports.

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c. AC 150/5200-9, Bird Reactions and Scaring Devices.

17. AIRPORT CONDITION ASSESSMENT AND REPORTING (Section 139.69).

- a. AC 150/5380-1, Airport Maintenance.
- b. AC 150/5380-2A, Snow Removal Techniques Where In-Pavement Lighting Systems are Installed.
- c. AC 150/5380-4, Ramp Operations During Periods of Snow and Ice Accumulation.

18. IDENTIFYING, MARKING, AND REPORTING CONSTRUCTION AND OTHER UNSERVICEABLE AREAS (Section 139.71).

- a. AC 150/5200-5, Considerations for the Improvement of Airport Safety.
- b. AC 150/5200-7, Safety on Airports During Maintenance of Runway Lighting.
- c. AC 150/5340-1C, Marking of Paved Areas on Airports.
- d. AC 150/5370-2, Safety on Airports During Construction Activity.

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APPENDIX 3. FAA FORM 5280-1, AIRPORT OPERATING CERTIFICATE APPLICATION

CERTIFICATE	OPERATING APPLICATION OF the form as the say the appears of the ap	ATION GTON indicated. Si	Original Amendm Exempti	ent FOR	Airpoi Helipi Stolpo Seapli	One or more) et ort ort ane Base : farm and one cop	Form Approved. OMB No. 04-R0195 FAA USE ONLY SITE NO. Oy of the Airport Operations 4. Airport is— (Anawer both) a. State Licensed YES NO b. State Inspected YES NO	
B. OPERATED BY	X'' All applica	ble boxes in	Items 1 and 2)			<u> </u>		
Municipality Corporation Port Authority Name of Owner	Stat	e aty	Military Other (Exp	olain)	(Number an	d street, city, Sta	2. Joint Use Airport Is— Mil./Civ. Joint Use Clv./Mil. Joint Use 10, ZIP code)	
4. Name of Manager/O				Address	(Number an	d street, city, Sta	te, ZIP code)	
C. OPERATIONAL D. 1. Firefighting Equipm				la Curr	nthe Feeinge	d for IFR Operati	one (UVI) One)	
I Firefighting Equips	Tic	Leur (voer)	ΠE	Z. Curre	arry Equippe	No	ions (· x·· One)	
3. Air Carriers Current 4. Air Carrier Aircraft D. REMARKS (Contin	Currently Serv	ed (727, DC-	9, etc.)					
This application, which includes the Airport Operations Manual submitted as a part of the application, is order to obtain an Airport Operating Certificate. I certify, under penalty of 18 U.S. Code, Section 1001 and able provisions of law, that the statements and information in the application form and manual are complet the best of my knowledge. CATION Signature of Applicant (Typod and signed) Address (No. and street, city, State, ZIP c								
	Title				Telephone No	o. (Incl. area code)	Date Submitted	
	FAA USE ONL	Y			SITE NO	,.,		
I, APPLICATION RECEIVED				2. PROPO	SED FOR INS	PECTION	DATE	
DATE 3. INSPECTION COMPLETED				SIGNATUR				
4. RECOMMENDED FOR CERTIFICATE MODIFICATION 5. REMARKS	··	DATE		SIGNATUE	RE AND TITL	e		
EAA E. 5280 1 (6)								

FAA Form 5280-1 (6-72) SUPERSEDES PREVIOUS EDITION

APPENDIX

AIRPORT

UNITED STATES OF AMERICA DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

AIRPORT OPERATING CERTIFICATE

This certifies that

has met the requirements of the Federal Aciation Act of 1958, as amended, and the rules, regulations, and standards prescribed thereunder for the issuance of this certificate, and is hereby authorized to operate as a certificated airport in accordance with and subject to said Act and the rules, regulations, and standards prescribed thereunder, including but not limited to 14 CFR Part 139, and any additional terms, conditions, and limitations contained herein.

This certificate is not transferable and, unless sooner surrendered, suspended or recoked, shall continue in effect

Effective date:

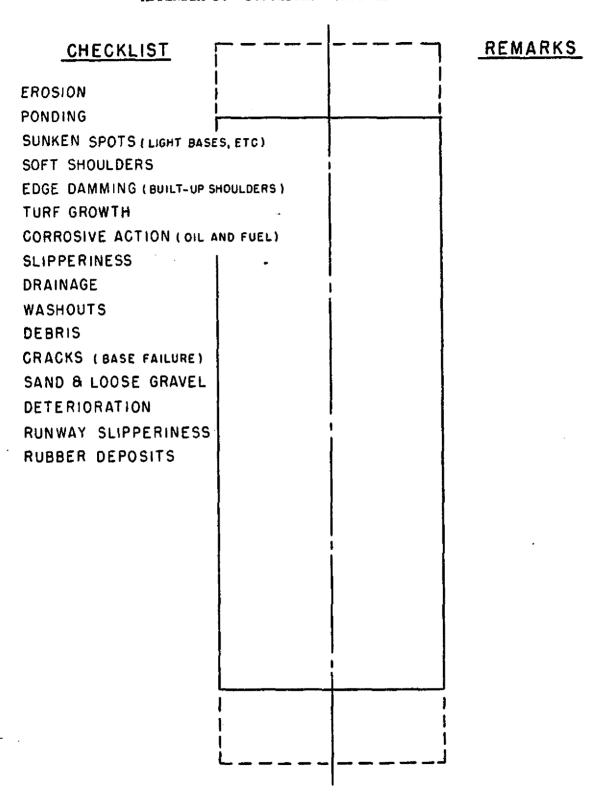
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STATES OF SALE	SIGNATURE

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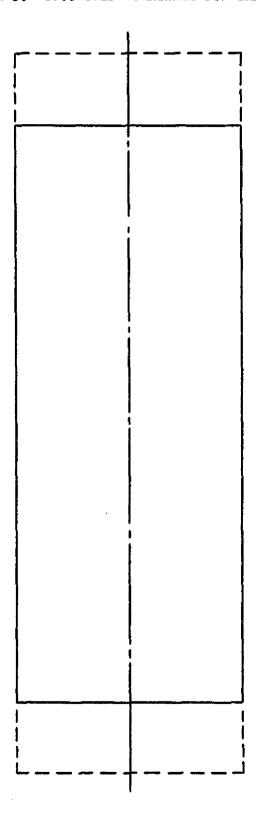
FAA FORM 5280-2 (9-71)

APPENDIX 5. SUGGESTED WORKSHEET FOR SURFACES

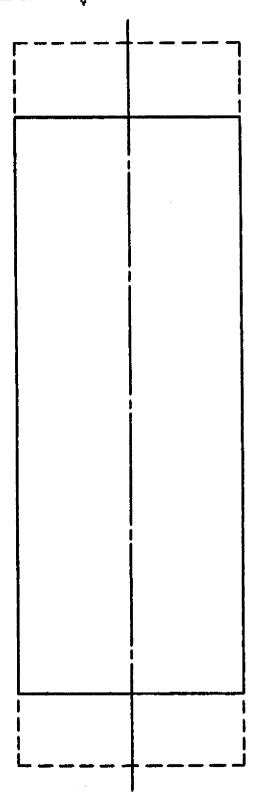


APPENDIX 5. SUGGESTED WORKSHEET FOR SAFETY AREAS

Note size of the safety areas.



APPENDIX 5. SUGGESTED WORKSHEET FOR LIGHTING



APPENDIX 5. SUGGESTED WORKSHEET FOR VEHICLES, PERSONNEL, AND EXTINGUISHING AGENTS

VE H	20	TYPE	MANUFACT	URE		PERS. PER SHIFT		E,	F O A	A F F	DRY C H E	co ₂ /L B		RESPONSE TIME (TO MIDPOINT OF FURTHEST
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LEGEND: A = QUANTITY OF EXTINGUISHING AGENT.

8 = DISCHARGE RATE IN GAL/MIN. OR LBS/SEC.

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