# FEDERAL REGISTER

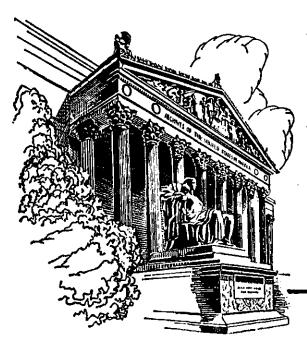
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**PART II** 

# DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration



Advisory Circular Checklist and Status of Federal Aviation Regulations



flight safety, of a possible hazard to flight space rule-making activity or changes should a passenger inadvertently or otherwise discharge a device commonly known as an "anti-mugger" spray device in the cabin of an aircraft.

90-17 Turbulence in Clear Air (12-16- 20-3B Status and Availability of Military

Provides information on atmospheric turbulence and wind shear, emphasizing important points pertaining to the common causes of turbulence, the hazards under which it is most likely to be 20-5A Planc Sense (4-4-67). encountered.

ized Weather Teletypewriter Com-munications System (7-8-66).

Transmits a technical report of the system improvements which the Federal Aviation Agency plans to make in the operation of the Services A, C, and O weather teletypewriter communications, network.

00–20 Cancellation of Flight Standards Service Releases (9–7–66).

Cancels all outstanding Flight Standards Service Releases.

00-21 Shoulder Harness (10-5-66).

Provides information concerning the installation and use of shoulder harnesses by pilots in general aviation aircrast.

90-23A Near Midair Collision Reporting (12-18-68).

Advises that the FAA will continue 20-9 Personal Aircraft Inspection Hand-through December 31, 1969, to handle hook (19-9-64) reports of near midair collisions in accordance with the policy established January 1, 1968.

∕00–24 Thunderstorms (6–12–68).

Contains information concerning flights in or near thunderstorms.

90-25 Forming and Operating a Flying Club (3-24-69).

Provides preliminary information that will assist anyone or any group of people interested in forming and operating a flying club. (\$0.35 GPQ). TD 4.8: F 67.

06-26 Definition of "U.S. Nati Aviation Standards" (1-22-69).

Informs the aviation community of the approval by the FAA Administrator of a definition of U.S. National Aviation Standards, the need for such standards, and their relationship to the Federal Aviation Regulations.

7 U.S. National Standard for the IFF Mark X (SIF) Air Traffic Con-trol Radar Beacon System Char-10-27 acteristics (ATCRBS) 1-24-69.

Informs the aviation community of the approval by the FAA Administrator of the U.S. National Aviation Standard for the ATCRBS.

#### Procedural

Subject No. 10

Airspace Rule-Making Proposaland Changes to Air Traffic Control Procedures (10-28-64).

Emphasizes the need for the early submission of proposals involving airto existing procedures for the control of air traffic.

#### Aircraft

SUBJECT No. 20

Handbooks and ANC Bulletins for Aircraft (5-12-69).

Announces the status and availability of Military Handbooks and ANC Bulleting prepared jointly with FAA.

Provides general aviation information for the private aircraft owner.

20-6L U.S. Civil Aircraft Register Vol. I and II (7-1-69).

Lists all active U.S. civil aircraft by registration number. Published in 1969. (\$18.25 GPO.) TD 4.18/2; 969.

20–7F General Aviation Inspection Aids, Summary (August 1969).

Provides the aviation community with a uniform means for interchanging service experience that may improve the durability and safety of aeronautical products. Of value to mechanics, operators of repair stations, and others engaged in the inspection, maintenance, and operation of aircraft in general. (\$3, \$3.75 foreign-Sub. GPO.) TD 4.409: 968.

20-7F Supplement 1 ≠(September **/** 1969).

20-7F Supplement 2 (October 1969).

Provides a general guide, in simple, nontechnical language, for the inspection of aircraft. Reprinted 1967. (\$1 GPO.) FAA 5.8/2 : Al 7/2.

20-10 Approved Airplane Flight Manuals for Transport Category Airplanes (7-30-63).

Calls attention to the regulatory requirements relating to FAA Approved Airplane Flight Manuals.

20-13A Surface-Effect Vehicles (8-28-61).

States FAA policy on surface-effect vehicles (vehicles supported by a cushion of compressed air).

20-15A Qualification of Type Certifi-cated Engines and Propellers for Aircraft Installations (3-24-66).

Calls attention to the relationship between both Federal Aviation Regulations. Parts 33 (Aircraft Engine Airworthiness) and 35 (Propeller Airworthiness), and various aircraft airworthiness parts.

20-17 Surplus Military Aircraft (1-6-64).

Informs how to obtain copies of regulations required for certification of surplus military aircraft.

20-18A Qualification Testing of Turbojet Engine Thrust Reversers (3-16-

Discusses the requirements for the qualification of thrust reversers and sets forth an acceptable means of compliance with the tests prescribed in Federal Aviation Regulations, Part 3, when run under nonstandard ambient air conditions.

20–20A Flammability of Jet Fuels (4–9– 65).

Gives information on the possibility of combustion of fuel in aircraft fuel tanks.

20-23C Interchange of Service Experience — Mechanical Difficulties (5-9-69).

Explains the advantages of a voluntary exchange of service experience data.

20-24A Qualification of Fuels, Labricants, and Additives (4-1-67).

Establishes procedures for the approval of the use of subject materials in certificated aircraft.

of Technical 20-25A Identification Standard Order (TSO) Safety Belts (3-14-69).

Describes the markings which indicate that a safety belt has been manufactured under the FAA TSO system and approved for use in certificated aircraft.

20-27A Certification and Operation of Amateur-Built Aircraft (8-12-68).

Provides information and guidance material for amateur aircraft builders.

20-28 Nationally Advertised Construction Kits (8-7-64). Advertised Aircraft

Explains that using certain kits could render the aircraft ineligible for the issuance of an experimental certificate as an amateur-built aircraft.

20-29A Use of Anti-Icing Additive PFA-55MB (6-19-67).

Provides information on the use of anti-icing additive for jet fuels to assure compliance with FAR's that require assurance of continuous fuel flow under icing conditions.

20–30A Airplane Position Lights and Supplementary Lights (4-18-68).

Provides an acceptable means for complying with the position light requirements for airplane airworthiness and acceptable criteria for the installation of supplementary lights on airplanes.

20-32A Carbon Monoxide (CO) Contamination in Aircraft—Detection and Prevention (9-13-68).

Informs aircraft owners, operators, maintenance personnel, and pilots of the potential dangers of carbon monoxide contamination and discusses means of detection and procedures to follow when contamination is suspected.

20-33 Technical Information Regarding Civil Aeronautics Manuals 1, 3, 4a, 4b, 5, 6, 7, 8, 9, 10, 13, and 14 (2–

Advises the public that policy information contained in the subject Civil Aeronautics Manuals may be used in conjunction with specific sections of the Federal Aviation Regulations.

20-34A Prevention of Retractable Landing Gear Failures (4-21-69).

Provides information and suggested procedures to minimize landing accidents involving aircraft having retractable landing gear.

20-35A Tie-Down Sense (10-29-68).

Provides information of general use on aircraft tie-down techniques and procedures.

20-36A Index of Materials, Parts and Appliances Certified Under the Technical Standard Order System—March 1, 1966 (4-8-66).

Lists the materials, parts, and appliances for which the Administrator has received statements of conformance under the Technical Standard Order system as of March 1, 1966. Such products are deemed to have met the requirements for FAA approval as provided in Part 37 of the Federal Aviation Regulations.

20-37A Aircraft Metal Propeller Blade Failure (4-4-69).

Provides information and suggested procedures to increase service life and to minimize blade failures of metal propellers.

20-38A Measurement of Cabin Interior Emergency Illumination in Transport Airplanes (2-8-66).

Outlines acceptable methods, but not the only methods, for measuring the cabin interior emergency illumination on transport airplanes, and provides information as to suitable measuring instruments.

20-39 Installation Approval of Entertainment Type Television Equipment in Aircraft (7-15-65).

Presents an acceptable method (but not the only method) by which compliance may be shown with Federal Aviation Regulations 23.1431, FAR 25.1309(b), FAR 27.1309(b), or FAR 29.1309(b) as applicable.

20-40 Placards for Battery-Excited Alternators Installed in Light Aircraft (8-11-65).

Sets forth an acceptable means of complying with placarding rules in Federal Aviation Regulations 23 and 27 with respect to battery-excited alternator installations.

20-41 Replacement TSO Radio Equipment in Transport Aircraft (8-30-65).

Sets forth an acceptable means for complying with rules governing transport category aircraft installations in cases involving the substitution of technical standard order radio equipment for functionally similar radio equipment.

20-42 Hand Fire Extinguishers in Transport Category Airplanes and Rotorcraft (9-1-65).

Sets forth acceptable means (but not the sole means) of compliance with certain hand fire extinguisher regulations in FAR 25 and FAR 29, and provides related general information.

20-43 Aircraft Fuel Contamination (9-3-65).

Informs the aviation community of the potential hazards of fuel contamination, its control, and recommended fuel servicing procedures.

20-44 Glass Fiber Fabric for Aircraft Covering (9-3-65).

Provides a means, but not the sole means, for acceptance of glass fiber fabric for external covering of aircraft structure.

20-45 Safetying of Turnbuckles on Civil Aircraft (9-17-65).

Provides information on turnbuckle safetying methods that have been found acceptable by the Agency during past aircraft type certification programs.

20-46 Suggested Equipment for Gliders Operating Under IFR (9-23-65).

Provides guidance to glider operators on how to equip their gliders for operation under instrument flight rules (IFR), including flight through clouds.

20-47 Exterior Colored Band Around Exits on Transport Airplanes (2-8-66).

Sets forth an acceptable means, but not the only means, of complying with the requirement for a 2-inch colored band outlining exits required to be openable from the outside on transport airplanes.

20-48 Practice Guide for Decontaminating Aircraft (5-5-66),

The title is self-explanatory.

20-49 Analysis of Bird Strike Reports on Transport Category Airplanes (7-27-66).

Provides the results of a statistical study on the frequency of collisions of birds with transport aircraft and the resulting damages.

20-50 Ultrasonic Nondestructive Testing (11-9-66).

Provides FAA personnel and the general aviation public with some of the theory and processes of ultrasonic testing which will assist them in the more advanced uses of this system for the inspection of aircraft and aircraft components during manufacture or maintenance. (\$0.45 GPO.) TD 4.8: Ul 8.

20-51 Procedures for Obtaining FAA Approval of Major Alterations to Type Certificated Products (4-12-67).

Provides assistance to persons who desire to obtain FAA approval of major alterations to type certificated products.

20-52 Maintenance Inspection Notes for Douglas DC-6/7 Series Aircraft (8-24-67).

Describes maintenance inspection notes which can be used for the maintenance support of certain structural parts of DC-6/7 series aircraft.

20-53 Protection of Aircraft Fuel System Against Lightning (10-6-67).

Sets forth acceptable means, not the sole means, by which compliance may be shown with fuel system lightning protection airworthiness regulations.

20-54 Hazards of Radium-Activated Luminous Compounds Used on Aircraft Instruments (10-24-67).

Provides information concerning health hazards associated with the repair

and maintenance of instruments containing luminous markings activated with radium-226 or radium-228 (mesothorium).

20-55 Turbine Engine Overhaul Standard Practices Manual—Maintenance of Fluorescent Penetrant Inspection Equipment (1-22-68).

Advises operators of the necessity for periodic checking of black light lamps and filters used during fluorescent penetrant inspection of engine parts.

20-56 Marking of TSO-C72a Individual Flotation Devices (1-19-68).

Outlines acceptable methods for marking individual flotation devices which also serve as seat cushions.

20-57 Automatic Lauding Systems (1-29-68).

Sets forth an acceptable means of compliance but not the only means for the installation approval of automatic landing systems in transport category aircraft which may be used initially in Category II operations.

20-58A Acceptable Means of Testing Automatic Altitude Reporting Equipment for Compliance with FAR 91.36(b) (4-28-69).

Title is self-explanatory.

20-59 Maintenance Inspection Notes for Convair 240, 340/440, 240T, and 340T Series Aircraft (2-19-68).

Describes maintenance inspection notes which can be used for the maintenance support of certain structural parts of Convair 240, 340/440, 240T, and 340T series aircraft.

20-60 Accessibility to Exess Emergency Exits (7-18-68).

Sets forth acceptable means of compliance with the "readily accessible" provisions in the Federal Aviation Regulations dealing with excess emergency exits.

20-62 Eligibility, Quality, and Identification of Approved Aeronautical Replacement Parts (4-30-69).

Provides information relative to the determination of the eligibility of aeronautical parts and materials for installation on certificated aircraft.

20-63 Airborne Automatic Direction Finder Installations (Low and Medium Frequency) (7-7-69).

Sets forth one means, but not the only means, of demonstrating compliance with the airworthiness rules governing the functioning of airborne automatic direction finders. It does not pertain to installations previously approved.

20-64 Maintenance Inspection Notes for Lockheed L-188 Series Aircraft (8-1-69).

Describes maintenance inspection notes which can be used for the maintenance support of certain structural parts of Lockheed L-188 series aircraft.

20-65 U.S. Airworthiness Certificates and Authorizations for Operation of Domestic and Foreign Aircraft (8-11-69).

Provides general information and guidance concerning issuance of air-

worthiness certificates for U.S. registered aircraft, and issuance of special flight authorizations for operation in the United States of foreign aircraft not having standard airworthiness certificates issued by the country of registry.

#### 21-1 Production Certificates (6-15-65).

Provides information concerning Subpart G of Federal Aviation Regulations (FAR) Part 21, and sets forth acceptable means of compliance with its requirements.

### 21-2A Export Airworthiness Approval Procedures (2-16-67).

Announces the adoption of new regulations and provides guidance to the public regarding the issuance of export airworthiness approvals for aeronautical products to be exported from the United States.

21-2A CH 1 (8-30-67).

21-2A CH 2 (10-30-67).

21-2A CH 3 (3-20-68).

21-2A CH 4 (11-6-68).

21-3 Basic Glider Criteria Handbook (1962).

Provides individual glider designers, the glider industry, and glider operating organizations with guidance material that augments the glider airworthness certification requirements of the Federal Aviation Regulations, Reprinted 1969. (\$1 GPO.) FAA 5.8/2: G 49/962.

#### 21-4B Special Flight Permits for Operation of Overweight Aircraft (7-30-69).

Furnishes guidance concerning special flight permits necessary to operate an aircraft in excess of its usual maximum certificated takeoff weight.

#### 21-5 Summary of Supplemental Type Certificates (2-24-66).

Announces the availability to the public of a new Summary of Supplemental Type Certificates (STC's), Part 21 of the Federal Aviation Regulations.

#### 21-6 Production Under Type Certificate Only (5-29-67).

Provides information concerning Subpart F of FAR Part 21, and sets forth examples, when necessary, of acceptable means of compliance with its requirements.

## 21-7 Certification and Approval of Import Products (6-13-67).

Provides guidance and information relative to U.S. certification and approval of import alreraft, alreraft engines, propellers manufactured in a foreign country with which the United States has an acceptance agreement of those products for export and import.

## 21-8 Aircraft Airworthiness; Restricted Category: Certification of Aircraft With Uncertificated or Altered Engines or Propellers (5-21-69).

Sets forth acceptable means of substantiating that uncertificated or altered engines and propellers have no unsafe features for type certification of alreraft in the restricted category.

21.25-1 Use of Restricted Category Airplanes for Glider Towing (4-20-65).

Announces that glider towing is now considered to be a special purpose for type and airworthiness certification in the restricted category.

## 21.303-1 Replacement and Modification Parts (3-2-66).

Provides information concerning section 21.303 of Federal Aviation Regulations, Part 21, and sets forth examples of acceptable means of compliance with its requirements.

23-1 Type Certification Spin Test Procedures (4-1-64).

Sets forth an acceptable means by which compliance may be shown with the one-turn spinning requirement in Part 3 of the CAR's.

23.1329-1 Automatic Pilot Systems Approval (Non-Transport) (12-23-65).

Sets forth an acceptable means by which compliance with the automatic pilot installation requirements of FAR 23.1329 may be shown.

25-1 Airplane Flight Manual Procedures
Associated with Performance Limitations (9-4-63).

Provides acceptable means for compliance with Special Regulation SR-422B, section 4T.743(c).

25-2 Extrapolation of Takeoff and Landing Distance Data Over a Range of Altitude for Turbine-Powered Transport Aircraft (7-9-64).

Sets forth acceptable means by which compliance may be shown with the requirements in CAR 4b and SR-422B.

25-4 Inertial Navigation Systems (INS) (2-18-66).

Sets forth an acceptable means for complying with rules governing the installation of inertial navigation systems in transport category aircraft.

### 25.253-1 High-Speed Characteristics (11-24-65),

Sets forth an acceptable means by which compliance may be shown with FAR 25.253 during certification flight tests.

25.253-1 CH 1 (1-10-66).

Provides amended information for the basic advisory circular.

25.1329-1A Automatic Pilot System Approval (7-8-68).

Sets forth an acceptable means by which compliance with the automatic pilot installation requirements of FAR 25.1329 may be shown.

25.1457-1 Cockpit Voice Recorder Installations (4-7-65).

Sets forth an acceptable means of compliance with provisions in FAR Part 25 pertaining to cockpit voice recorder location and erasure features.

## 27.1581-1 Sea Rotorcraft Autorotative Landing on Land (8-3-65).

Sets forth acceptable means, not the sole means, with which to provide suitable warning information to crews of

float-equipped rotorcraft (pneumatic bag type) when a safe autorotative landing on land may not be possible.

29-1 Approval Basis for Automatic Stabilization Equipment (ASE) Installations in Rotorcraft (12-26-63).

Gives means for compliance with flight requirements in various CAR's.

29-1 CH 1 (3-26-64).

Transmits revised information about the time delay of automatic stabilization equipment.

26.773-1 Pilot Compartment View (1-19-66).

Sets forth acceptable means, not the sole means, by which compliance with FAR 29.773(a) (1), may be shown.

33-1A Turbine-Engine Foreign Object Ingestion and Rotor Blade Containment Type Certification Procedures (6-19-68).

Provides guidance and acceptable means, not the sole means, by which compliance may be shown with the design and construction requirements of Part 33 of the Federal Aviation Regulations.

33-2 Aircraft Engine Type Certification Handbook (3-30-66).

Contains guidance relating to type certification of aircraft engines which will constitute acceptable means, although not the sole means, of compliance with the Federal Aviation Regulations.

33-2 CH 1 (9-13-67).

Transmits revised material to the basic advisory circular.

33-3 Turbine and Compressor Rotors
Type Certification Substantiation
Procedures (9-9-68).

Sets forth guidance and acceptable means, not the sole means, by which compliance may be shown with the turbine and compressor rotor substantiation requirements in FAR Part 33.

37-2 Test Procedures for Maximum Allowable Airspeed Indicators (12-9-68).

Provides guidance concerning test procedures which may be used in showing compliance with the standards in FAR 37.145 (TSO-C46a).

37-3 Radio Technical Commission for Aeronautics Document DO-138 (1-10-69).

This circular announces RTCA Document DO-138 and discusses how it may be used in connection with technical standard order authorizations.

39-1 Jig Fixtures; Replacement of Wing Attach Angles and Doublers on Douglas Model DC-3 Series Aircraft (8-1-63).

Describes methods of determining that jig fixtures meet the requirements of Airworthiness Directive 63-4-1.

39-3 Distribution of Airworthiness Directives (3-29-67).

Announces a new procedure for the distribution of airworthiness directives.

Announces the availability to the public of a subscription service for airworthiness directives.

39-6A Distribution of Airworthiness Directives (8-8-69).

Announces an improved distribution service for airworthiness directives. amended to show a change in price.

43-1 Matching VHF Navigation ceiver Outputs With Display Indicators (8-2-65).

Alerts industry to the possibility of mismatching outputs, both guidance and flag alarm, of certain VHF navigation receivers when used with some types of display indicators causing the receiver to fail without providing a flag alarm.

43-2 Minimum Barometry for Calibration and Test of Atmospheric Pressure Instruments (9-10-65).

Sets forth guidance material which may be used to determine the adequacy of barometers used in the calibration of aircraft static instruments and presents information concerning the general operation, calibration, and maintenance of such barometers.

43.9-1B Instruction for Completion of FAA Form 337 (6-27-66).

Provides instructions for completing revised FAA Form 337, Major Repair and Alteration (Airframe, Powerplant, Propeller, or Appliance).

43.11-1B Aircraft Use and Inspection Report (8-29-68).

Provides instructions for the completion of FAA Form 8320-3 (11-67), Aircraft Use and Inspection Report formerly FAA 2350.

43.13-1 Acceptable Methods, Techniques and Practices-Aircraft Inspection and Repair (5-16-66).

Contains methods, techniques, and practices acceptable to the Administrator for inspection and repair to civil aircraft. Published in 1965. (\$3-Sub. GPO.) FAA

Subscription now includes: Ch. 1 (5-1-67); Ch. 2 (8-9-67); Ch. 3 (1-24-68); Ch. 4 (1-29-68); Ch. 5 (9-20-68); Ch. 6 (5-1-69).

43.13-2 Acceptable Methods, Techniques, and Practices-Aircraft Alterations (4-19-66).

Contains methods, techniques, and practices acceptable to the Administrator in altering civil aircraft. Published in 1965. (\$2-Sub. GPO.) FAA 5.16: 965.

Subscription now includes: Ch. 1 (1-12-67); Ch. 2 (5-26-67); Ch. 3 (6-26-67); Ch. 4 (9-12-67); Ch. 5 (11-9-67); Ch/6 (4-12-68).

43–202 Maintenance of Weather Radar Radomes (6-11-65).

Provides guidance material useful to repair facilities in the maintenance of weather radar radomes.

39-5 Distribution of Airworthiness Directives (10-3-67).

43-203A Altimeter and Static System Tests and Inspections (6-6-67).

Specifies acceptable methods for testing altimeter and static system. Also, provides general information on test equipment used and precautions to be taken.

#### Airmen

#### SUBJECT No. 60

60-1 Know Your Aircraft (6-12-63).

Describes potential hazards associated with operation of unfamiliar aircraft and recommends good operating practices.

60-2F Annual Aviation Mechanic Safety Awards Program (6-16-69).

Provides details of the annual Aviation Mechanic Safety Awards Program which is a joint effort of FAA, the Flight Safety Foundation, and the aviation community.

60-4 Pilot's Spatial Disorientation (2-9--65).

Acquaints pilots flying under visual flight rules with the hazards of disorientation caused by the loss of reference with the natural horizon.

Advisory Information on Written Test Questions Missed (4-24-67).

Announces a new automated method of reporting written test results to airmen applicants. The applicant will be provided information concerning the subject matter areas in which one or more questions were answered incorrectly on the test.

60-6 FAA Approved Airplane Flight Manuals, Placards, Listings, Instrument Markings-Small Airplanes (12-13-68).

Alerts pilots to the regulatory requirements relating to the subject and provides information to aid pilots to comply with the provisions of FAR section 91.31.

Aircraft Type Ratings (12-14-61-1B 67).

Lists the aircraft type ratings issued to pilots and advises the public of the designations used for the aircraft on which type ratings are issued.

61-2A Private Pilot (Airplane) Flight Training Guide (9-1-64).

Contains a complete private pilot flight training syllabus which consists of 30 lessons. Published in 1964. (\$1 GPO.) FAA 5.8/2 : P 64/4/964.

61-3B Flight Test Guide-Private Pi-lot-Airplane-Single Engine (4-2-68).

Assists the private pilot applicant in preparing for his certification flight test. Published in 1968. (\$0.20 GPO.) TD 4.408; P 64/2.

61-4B Flight Test Guide-Multiengine Airplane Class or Type Rating (4-1-68).

Assists the private pilot applicant in preparing for certification or rating flight tests. Reprinted in 1969. (\$0.25 GPO.) TD 4.408 : M 91.

61-5A Helicopter Pilot Written Test Guide-Private-Commercial (8-14-67).

Gives guidance to applicants preparing for the aeronautical knowledge requirements for a private or commercial pilot certificate with a helicopter rating.

Instrument Pilot Examination Guide (1-12-66).

Assists pilots in preparing for the Instrument Pilot Examination. Reprinted 1969. (\$0.55 GPO.) FAA 5.8/2 : In 7/966.

61-9 Pilot Transition Courses for Complex Single-Engine and Light Twin-Engine Airplanes (6-16-64).

Provides training syllabuses and checkout standards for pilots who seek to qualify on additional types of airplanes. Published in 1964. (\$0.15 GPO.) FAA 5.8/2: P 64/7.

61-10 Private and Commercial Pilots Refresher Courses (9-1-64).

Provides a syllabus of ground instruction periods and training lessons. Reprinted in 1969. (\$0.25 GPO.) FAA 5.8/2: P 64/9.

61-11A Airplane Flight Instructor Written Test Guide (9-5-67).

Provides information to prospective airplane flight instructors about certification requirements, application procedures, and reference study materials; a sample examination is presented with explanations of the correct answers. Reprinted in 1969. (\$0.70 GPO.) TD 4.408 : In 7.

61-12C Student Pilot Guide (10-3-68).

Serves as a guide for prospective student pilots and presents general procedures for obtaining student and private pilot certificates. Published in 1969. (\$0.20 GPO.) TD 4.8: P 64/968.

61-13 Basic Helicopter Handbook (1-20-66).

Provides detailed information to applicants preparing for private, commercial, and flight instructor pilot certificates with a helicopter rating about helicopter aerodynamics, performance, and flight maneuvers. It will also be useful to certificated helicopter flight instructors as an aid in training students. Published in 1965. (\$0.75 GPO.) FAA 5.8/2: H 36.

Flight Instructor Practical Test Guide (1-19-65).

Provides assistance to the certificated pilot in preparing for the practical demonstration required for the issuance of the flight instructor certificate. Reprinted in 1969. (\$0.15 GPO.) FAA 5.8/2; F 64/8.

61.15-1 Helicopter or Gyroplane Class Rating Requirement for Rotorcraft Pilots (1-15-63).

Calls the attention of certificated rotorcraft pilots to the fact that helicopter or gyroplane class ratings are required for the operation of rotorcraft after 2-1-63.

61-16 Flight Instructor's Handbook (1-19-65).

Contains study and reference material on the principles of teaching and flight training procedures. Reprinted 1969. (\$1.25 GPO.) FAA 5.8/2: F 64/7.

61-17A Flight Test Guide-Instrument Pilot Airplane (6-6-67).

Provides assistance for the instrument pilot applicant in preparing for his instrument rating flight test. Published in 1967. (\$0.10 GPO.) TD 4.408: In 7/2.

61-18B Airline Transport Pilot (Airplane) Written Test Guide (7-1-68).

Describes the type and scope of aeronautical knowledge covered by the written examination, lists appropriate references for study, and presents sample examination questions. Published in 1968. (\$0.55 GPO.) TD 4.408: P 64/3.

61-19 Safety Hazard Associated With Simulated Instrument Flights (12-4-64).

Emphasizes the need for care in the use of any device restricting visibility while conducting simulated instrument flights that may also restrict the view of the safety pilot.

61-21 Flight Training Handbook (1-11-66).

Provides information and direction in the introduction and performance of training maneuvers for student pilots, pilots requalifying or preparing for additional ratings, and flight instructors, Reprinted in 1969. (\$1.25 GPO.) FAA 1.8: F 64/4.

61-22A Pilot Flight Tests in Small Airplanes With Stability/Control Augmentation (3-16-66).

Rescinds the limitation published in AC 61-22 for pilot certificates issued on the basis of flight training and tests in airplane equipped with gyroscopic stability/control augmentation systems.

61-23 Private Pilot's Handbook of Aeronautical Knowledge (5-27-66).

Contains essential, authoritative information used in training and guiding applicants for private pilot certification, flight instructors, and flying school staffs. Reprinted in 1969. (\$2.75 GPO.) FAA 5.8/2: P 64/5/965.

61-25 Flight Test Guide—Helicopter, Private and Commercial Pilot (12-7-65).

Assists the helicopter pilot applicant in preparing for the certification flight tests; provides information concerning applicable procedures and standards. Published in 1965. (\$0.10 GPO.) FAA 1.8: H 36/2.

61-27A Instrument Flying Handbook (4-30-68).

Provides the pilot with basic information needed to acquire an FAA instrument rating. It is designed for the reader who holds at least a private pilot certificate and is knowledgeable in all areas covered in the "Private Pilot's Handbook of Aeronautical Knowledge." Published in 1969. (\$2.50 GPO.) TD 4.408: In 7/3.

61-28 Commercial Pilot Examination Guide (5-17-66).

Guides prospective applicants toward a clear understanding of the requirements, the reference materials, the form of the examination, and the examining procedures. Published in 1966. (\$0.75 GPO.) FAA 5.8/2: P 64/3/966.

61-29 Instrument Flight Instructor Written Examination Guide (9-28-66).

Designed to aid those preparing for the Instrument Flight Instructor Written Examination, this guide outlines basic knowledge necessary to an instrument flight instructor, indicates sources helpful in acquiring this knowledge, and provides sample questions and answers for practice. Reprinted 1969. (\$1.00 GPO.) FAA 1.8: In 7.

61-30 Flight Test Guide-Gyroplane, Commercial Pilot (2-8-66).

Assists commercial pilot operator in preparing for certification test. Revised in 1966. (\$0.15 GPO.) FAA 5.8/2: G 99/2/966.

61-31 Gyroplane Pilot Examination Guide, Private and Commercial (2-9-66).

Outlines information basic to a gyroplane pilot, lists sources useful in acquiring this knowledge, and presents sample examination questions.

61-32 Private Pilot Written Examination Guide (8-15-67).

A combination workbook, written test guide. Includes 71 exercises covering every section of the Private Pilot's Handbook of Aeronautical Knowledge plus a sample written test presented in a fashion similar to the current Private Pilot Written Examination. Reprinted in 1969. (\$1.75 GPO.) TD 4.408; P 64.

61-33 Gyroplane Flight Instructor Examination Guide (3-25-66).

Assists applicants who are preparing for the Flight Instructor Rotorcraft Gyroplane Written Examination. Revised in 1966.

61-34 Federal Aviation Regulations Written Examination Guide for Private, Commercial, and Military Pilots (11-17-67).

Outlines the scope of the basic knowledge required of civilian pilots who are studying regulations as they pertain to certification of private and commercial pilots. Additionally, it accomplishes the same for military pilots or qualified former military pilots who are applying for FAA private or commercial pilot certificates on the basis of military competency. Reprinted 1969. (\$0.50 GPO.) TD 4.8: P 64.

61-36 Use of Other Than U.S. Coast and Geodetic Survey Charts on Pilot Flight Tests (2-6-67).

Clarifles the requirement governing the use on pilot flight tests of en route and instrument approach charts prepared by other than the U.S. Coast and Geodetic Survey.

61-37 Correction to Koch Chart in AC 61-11 and AC 61-28 (2-14-67).

Informs holders of AC 61-11, Airplane Flight Instructor Examination Guide, (1965) and AC 61-28, Commercial Pilot Written Examination Guide (1966), of inaccuracies in the Koch Charts for Altitude and Temperature Effects which appear in these publications.

61-38 Rotorcraft Helicopter Written Test Guide (8-16-67).

Gives guidance to applicants preparing for the aeronautical knowledge requirement for a flight instructor certificate with a helicopter rating.

61-39 Flight Test Guide, Private and Commercial Pilot-Glider (8-28-67).

Assists applicants for private and commercial pilot flight tests in gliders,

61-41 Glider Flight Instructor Written Test Guide (11-7-67).

Outlines the scope of the basic aeronautical knowledge requirements for a glider flight instructor; acquaints the applicant with source material that may be used to acquire this basic knowledge; and presents a sample test with correct answers and explanations.

61-42 Airline Transport Pilot (Helicopter) Written Test Guide (11-7-67).

Provides guidance to applicants preparing for the Airline Transport Pilot Rotorcraft/Helicopter (VFR and/or IFR) Written Tests. Describes the type and scope of required aeronautical knowledge covered by the written test. (\$0.25 GPO.) TD 4.408: H 36.

61-43 Glider Pilot Written Test Guide— Private and Commercial (11-30-67).

Outlines the scope of the basic aeronautical knowledge requirements for a glider pilot; acquaints the applicant with source material that may be used to acquire this basic knowledge; and presents a sample test with correct answers and explanations.

61-45 Instrument Rating (Helicopter) Written Test Guide (1-24-68).

Assists applicants who are preparing for the helicopter instrument rating. Presents a study outline, study materials and a sample test with answers.

61-46 Flight Instructor Procedures (6-4-69).

Informs flight instructors of the procedures involved in the renewal or reinstatement of Flight Instructor Certificates, qualification for "Gold Seal" certificates, and endorsing student pilot logbooks for various operations.

61.117-1C Flight Test Guide—Commercial Pilot, Airplane (2-7-69).

Assists the commercial applicant in preparing for his certification flight test. (\$0.20 GPO.) TD 4.8: P 64/3.

63-1A Flight Engineer Written Test Guide (5-10-68).

Contains information about certification requirements and describes the type and scope of the examination. It also lists appropriate study and reference material and presents sample examinations with test items similar to those found in the official examinations. Published in 1968. (\$0.50 GPO.) TD 4.408: En 3.

63-2A Flight Navigator Written Test Guide (4-4-69).

Defines the scope and narrows the field of study to the basic knowledge required for the Flight Navigator Certificate. Published in 1969. (\$0.40 GPO.) TD 4.8: F 64/2.

65-2A Airframe and Powerplant Mechanics Certification Guide (10-12-67).

Provides information to prospective airframe and powerplant mechanics and other persons interested in FAA certification of aviation mechanics. Reprinted in 1969. (\$0.65 GPO.) TD 4.8: Al 7/8.

65-4A Aircraft Dispatcher Written Test Guide (8-16-68).

Describes the type and scope of aeronautical knowledge covered by the aircraft dispatcher written examination, lists reference materials, and presents sample questions. Published in 1969. (\$0.50 GPO.) TD 4.8: Ai 7/12.

65-5 Parachute Rigger Certification Guide (6-19-67).

Provides information on how to apply for a parachute rigger certificate or rating and assists the applicant in preparing for the written, oral, and practical tests. Published in 1968. (\$0.15 GPO.) TD 4.8: P 21.

65-6A Change in Airframe and Powerplant Mechanic Tests (12-8-67).

Provides a new effective date for the changeover to a new format for the Airframe and Powerplant mechanic written, oral, and practical tests announced by the earlier circular.

65-8 1969 Aviation Maintenance Symposium-Advances in Aviation Maintenance Technology (5-14-69).

Announces the fifth annual aviation maintenance symposium to be held in Oklahoma City—December 9, 10, and 11, 1969.

65.33-1 List of Study References for the ATC Tower Operator Examination (5-25-66).

The title is self-explanatory.

65.95-2A Handbook and Study Guide for Aviation Mechanics' Inspection Authorization (4-15-69).

Gives guidance to persons conducting annual and progressive inspection and approving major repairs or alterations of aircraft. While the handbook is primarily intended for mechanics holding or preparing for an Inspection Authorization, it may be useful to aircraft manufacturers and certificated repair stations who have these privileges.

#### Airspace

SUBJECT No. 70

70/7460-1 Obstruction Marking and Lighting (2-29-68). (Consolidated reprint includes change 1, 1969.)

Describes the agency standards on obstruction marking and lighting and establishes the methods, procedures, and equipment types as official FAA policy. (\$0.60 GPO.) TD 4.8: Ob 7/968.

70/7460-2A Proposed Construction or Alterations of Objects That May Affect the Navigable Airspace (7-2-69).

Alerts those persons proposing to erect or alter an object that may affect the navigable airspace of the requirement to submit a notice to the Administrator of the FAA.

70/7460-3 Petitioning the Administrator for Discretionary Review; Section 77.37, FAR (8-8-68).

Revises and updates information concerning the submission of petitions to the Administrator for review, extension, or revision of determinations issued by regional directors or their designees.

73-1 Establishment of Alert Areas (3-11-68).

Announces the establishment of alert areas and sets forth the procedures which FAA will follow in establishing such areas.

77-1 Objects Affecting Navigable Airspace (7-2-65).

Announces the availability of the revised Part 77 of the Federal Aviation Regulations (FAR), dated May 1, 1965. This revised Part 77 supersedes the edition dated December 12, 1962.

## Air Traffic Control and General Operations

SUBJECT No. 90

90-1A Civil Use of U.S. Government Produced Instrument Approach Charts (4-10-68).

Clarifies landing minimums requirements and revises instrument approach charts.

90-5 Coordination of Air Traffic Control Procedures and Criteria (6-13-63).

States Air Traffic Service policy respecting coordination of air traffic procedures and criteria with outside agencies and/or organizations.

90-8 Radio Identification of Student Pilots (8-15-63).

Encourages student pilots to identify themselves when communicating with FAA facilities.

90-11A Air Traffic Control Radio Frequency Assignment Plan (6-7-68).

Describes the civil air traffic control very high frequency assignment plan and the allocation of frequencies in the 118– 136 MHz band. 90-12 Severe Weather Avoidance (4-15-64).

Provides information regarding air traffic control assistance in avoiding severe weather conditions.

90-14A Altitude—Temperature Effect on Aircraft Performance (1-26-68).

Introduces the Denalt Performance Computer and reemphasizes the hazardous effects density altitude can have on aircraft.

90-19 Use of Radar for the Provision of Air Traffic Control Services (10-29-64).

Advises the aviation community of FAA practice in the use of radar information to provide air traffic control services.

90-20 Weather Radar Radomes (11-12-64).

Highlights some important points to consider in the selection and maintenance of weather radar radomes.

90-22A Automatic Terminal Information Service (ATIS) (10-9-68).

Provides updated information concerning the operation of Automatic Terminal Information Service (ATIS).

90-23A Wake Turbulence (12-21-65).

Provides information on the subject of wake turbulence and suggests techniques that may help pilots avoid the hazards associated with wing tip vortex turbulence.

90-31 Retention of Flight Service Station (FSS) Civil Flight Plans and Related Records (7-1-67).

Establishes new retention periods for flight plans, preflight briefing logs, visual flight rule flight progress strips, and related records with FSSs.

90-32 Radar Capabilities and Limitations (8-15-67).

Advises the aviation community of the inherent capabilities and limitations of radar systems and the effect of these factors on the service provided by air traffic control (ATC) facilities.

90-33 VFR Communications for General Aviation (11-20-67).

Describes VHF (118-136 MHz band) air/ground communications channel utilization for general aviation aircraft in the VFR environment and includes information on the use of channels in the private aircraft (122-123 MHz) band recently made available by the Federal Communications Commission (Docket 17177).

90-34 Accidents Resulting from Wheelbarrowing in Tricycle Gear Equipped Aircraft (2-27-68).

Explains "wheelbarrowing", the circumstances under which it is likely to occur, and recommended corrective action.

90-35 Frequency Discipline (5-17-68).

Reemphasizes the need for pilots to be constantly aware of the importance of

practicing frequency discipline in normal 91-3 Acrobatic Flight (9-30-63). conduct of operations.

90-36 The Use of Chaff as an In-Flight Emergency Signal (5-22-68).

Advises of the value and proper usage of chaff to alert radar controllers to the presence of an aircraft in distress which has a two-way radio failure.

90-37 Flight Operations Near Airports (6-19-68).

Emphasizes to pilots the necessity of adhering to good operating practices and procedures, particularly when operating at or near airports.

90-38 Use of Preferred IFR Routes (8-4-68).

Outlines the background, intent, and requested actions pertaining to the use of preferred IFR routes.

90-39 Identification of Civil Aircraft in Radio Communications (8-5-68).

Outlines an important change in the Federal Communications Commission (FCC) rules for the aviation services concerning the methods of identifying aircraft in radio transmissions.

90-40 Intersection Takeoffs (9-5-68).

Apprises pilots concerning procedures governing intersection takeoffs.

90-41 Standard Terminal Arrival Routes (9-6-68).

Describes a program for establishment and use of standard terminal arrival (STARS).

90-42 Traffic Advisory Practices at Nontower Airports (12-9-68).

This circular establishes, as good operating practices, procedures for pilots to exchange traffic information when operating to or from nontower airports.

90-43 Operations Reservations for High-Density Traffic Airports. (3-25-69).

Advises the aviation community of the means for all aircraft operators, except scheduled and supplemental air carriers and scheduled air taxis, to obtain a reservation to operate to and/or from designated high-density traffic airports.

90-41 Airport Ground Operations During Low Visibility Conditions (4-25-69).

Alerts the aviation community to potential problem areas which may exist on airport movement areas during periods of extremely low visibility.

90-45 Approval of Area Navigation Systems for Use in the U.S. National Airspace System (8–18–69).

Provides guidelines for implementation of area navigation (RNAV) within the National Airspace System (NAS).

90-46 Depiction of Holding Patterns (8-19-69).

Provides information concerning the Federal Aviation Administration's plan to chart holding patterns and the course of action to be followed when holding is required.

Sets safe operating practices for the conduct of acrobatic flight operations.

Waivers of Subpart B, Part 91 of the Federal Aviation Regulations (FARs) (5-6-69).

Provides updated information concerning the submission of applications for and the issuance of waivers of Subpart B. FAR 91.

91-6 Water, Slush, and Snow on the Runway (1-21-65).

Provides background and guidelines concerning the operation of turbojet aircraft with water, slush, and/or snow on the runway.

91-7 Hazards Associated With In-Flight Use of "Visible-Fluid" Type Cigarette Lighters (3-16-65).

Discusses the potential hazards associated with in-flight use of "visible-fluid" type cigarette lighters.

Use of Oxygen by General Aviation Pilots/Passengers (5-16-65).

Provides general aviation personnel with information concerning the use of oxygen.

91-9 Potential Huzards Associated With Turbojet Ground Operations (6-19-

Alerts turbojet operators and flight crews to potential hazards involving turbojet operations at airports.

Suggestions for Use of ILS Minima by General Aviation Opera-tors of Turbojet Airplanes (10-8-

Provides general aviation operators of turbojet airplanes with information on practices and procedures to be considered before utilizing the lowest published IFR minima prescribed by FAR Part 97 and provides information on pilot-in-command experience, initial and recurrent pilot proficiency, and airborne airplane equipment.

Periodic 91-11 Inspection Reminder (8-10-65).

Provides the aviation community with a uniform visual reminder of the date a periodic inspection becomes due.

Guide to Drug Hazards in Aviation Medicine (7-19-63).

Lists all commonly used drugs by pharmacological effect on airmen with side effects and recommendations. Published in 1962. (\$0.35 GPO.) FAA 7.9 : D 84.

91-12 Required Inspection for Air Carrier Aircraft Reverting to General Operation Under FAR 91 (5-24-66).

Describes acceptable methods for complying with the required inspections established by FAR Part 91.

91-13 Cold Weather Operation of Aircraft (11-16-66).

Emphasizes factors to be considered for the effective preparation, maintenance, and operation of aircraft in cold weather.

91-14 Altimeter Setting Sources (2-15-67).

Provides the aviation public, industry, and FAA field personnel with guidelines for setting up reliable altimeter setting sources.

91-15 Terrain Flying (2-2-67).

A pocket-size booklet designed as a tool for the average private pilot. Contains a composite picture of the observations, opinions, warnings, and advice from veteran pilots who have flown this vast land of ours that can help to make flying more pleasant and safer. Tips on flying into Mexico, Canada, and Alaska. (\$0.55 GPO.) TD 4.2; T 27.

91-16 Category II Operations-General Aviation Airplanes (8-7-67).

Sets forth acceptable means by which Category II operations may be approved in accordance with FAR Parts 23, 25, 61, 91, 97, and 135.

91-17 The Use of View Limiting Devices on Aircraft (2–20–68).

Alerts pilots to the continuing need to make judicious and cautious use of all view limiting devices on aircraft.

8 Course Needle Oscillations on VHF Omnidirectional Range (VOR) Receivers (12-6-68).

Advises all operators of aircraft equipped with VHF omnidirectional range (VOR) receivers regarding course needle oscillations.

91-19 Emergency Locator Beacons— Crash, Survival, Personnel (3-17-

Provides information concerning recent activities relating to emergency locator radio beacons. Describes for users the means by which such signals will be monitored or heard.

91-20 Inspection Schedule-for Beech Model B-99 (3-14-69).

Provides information for use by persons planning to develop an inspection schedule for Beech Model B-99.

91-21 Inspection Schedule-for Handicy-Page Model HP-137 (4-24-69).

Provides information for use by persons planning to develop an inspection schedule for the Handley-Page Model HP-137 aircraft.

91-22 Altitude Alerting Devices/Systems (7-7-69).

Provides guidelines for installing and evaluating altitude alerting systems.

91-24 Aircraft Hydroplaning or Aquaplaning on Wet Runways (9-4-69).

Provides information to the problem of aircraft tires hydroplaning on wet runways.

91-25 Loss of Visual Cues During Low Visibility Landings (9-22-69).

Provides information regarding the importance to the pilot of maintaining unbroken visual cues during the final stages of an instrument approach when reaching the DH or MDA and continuing further descent.

(1-8-68).

Discusses occurrences which may cause structural damage affecting the airworthiness of aircraft.

91.83-1 Canceling or Closing Flight Plans (3-12-64).

Outlines the need for canceling or closing flight plans promptly to avoid costly search and rescue operations,

91.83-2 IFR Flight Plan Route Information (2-16-66).

Clarifies the air traffic control needs for the filing of route information in an IFR (Instrument Flight Rules) flight plan.

Airway and Route Obstruction 95 - 1Clearance (6-17-65).

Advises all interested persons of the airspace areas within which obstruction clearance is considered in the establishment of Minimum En Route Instrument Altitudes (MEAs) for publication in FAR Part 95.

99.11-1 Flight Plan Requirements: Constal or Domestic ADIZ (11-15-

Provides recommended flight plan filing procedures for operation within or into an Air Defense Identification Zone (ADIZ)

99.27-1 Flight Plan Tolerances for Air Defense Identification Zones (9-30-63).

Provides recommended flight plan tolerances for operations within or into the ADIZ,

-1 Waivers of Part 101, Fede Aviation Regulations (1–13–64). Federal 101-1

Provides information on submission of applications and issuances of waivers to FAR Part 101.

103-1 Hazard Associated With Sublimation of Solid Carbon Dioxide (Dry Ice) Aboard Aircraft (12-16-63).

Discusses potential hazards of dry ice and gives precautionary measures.

105-2 Sport Parachute Jumping (9-6-68).

Provides suggestions to improve sport parachuting safety; information to assist parachutists in complying with FAR Part 105; and a list of aircraft which may be operated with one cabin door removed, including the procedures for obtaining FAA authorization for door removal.

#### Air Carrier and Commercial Operators and Helicopters

Subject No. 120

120-1A Reporting Requirements of Air Carriers, Commercial Operators, and Travel Clubs (4-24-69).

Advises of the mechanical reliability reporting requirements contained in FAR Parts 121 and 127 and the accident and incident reporting requirements of NTSB Part 430, Safety Investigation Regulations.

91,29-1 Special Structural Inspections 120-2A Precautionary Propeller Feath-(1-8-68). cring To Prevent Runaway Propellers (8-20-63).

> Emphasizes the need for prompt feathering when there is an indication of internal engine failure.

120-4B Criteria for Turbojet Landing Weather Minima-Air Carriers and Commercial Operators of Large Aircraft (6-14-68).

Sets forth the criteria for approval of landing weather minima for turbojet aircraft below 34-mile visibility or RVR 4,000 but above Category II minima.

120-5 High Altitude Operations in Areas of Turbulence (8-26-63).

Recommends procedures for use by jet pilots when penetrating areas of severe turbulence.

120-7 Minimum Altitudes for Conducting Certain Emergency Flight Training Mancuvers and Procedures (9-4-63).

Recommends minimum altitudes for conducting simulated emergency flight training maneuvers be established.

120-12 Private Carriage Versus Com-mon Carriage by Commercial Operators Using Large Aircraft (6-24-64).

Provides guidelines for determining whether current or proposed transportation operations by air constitute private or common carriage.

120-13 Jet Transport Aircraft Attitude Instrument Systems (6-26-64).

Provides information about the characteristics of some attitude instrument systems presently installed in some jet transport aircraft.

120-14 Air Taxi Operators and Commercial Operators of Small Aircraft (7-6-64).

Clarifies the requirements of Part 135 of the FAR's and provides additional information not readily available.

120-16 Continuous Airworthiness Program (10-19-64),

Provides air carriers and commercial operators with guidance and information pertinent to the regulatory amendments concerned with requirements for air carrier continuous airworthiness program.

120-17 Handbook for Maintenance Control by Reliability Methods (12-31-64).

Provides information and guidance material which may be used to design or develop maintenance reliability programs which include a standard for determining time limitations.

120-17 CH 1 (6-24-66).

120-17 CH 2 (5-6-68).

120-18 Preservation of Maintenance Records (5-10-65).

Provides information and guidance relative to the microfilming of maintenance records. \*

120-20 Criteria for Approval of Category II Landing Weather Minima (6-6-66).

Sets forth criteria, guidelines, and procedures which provide an acceptable basis for the approval of Category II ILS minima and the installation approval of the associated airborne systems.

120-20 CH 1 (1-12-68).

Transmits a revised Appendix 3 of the Advisory Circular.

120-20 CH 2 (5-21-68).

Clarifies use of minimum glide slope threshold crossing height in Par. 11, Appendix 3.

120-21 Aircraft Maintenance Time Limitations (6-24-66).

Provides method and procedures for the initial establishment and revision of time limitations on inspections, checks, maintenance or overhaul.

120-24A Establishment and Revision of Aircraft Engine Overhaul and Inspection Periods (2-25-69).

Describes methods and procedures used by the FAA in the establishment and revision of aircraft engine overhaul periods.

120-26 Civil Aircraft Operator Designators (1-25-68).

States the criteria and the procedures for the assignment of a designator and a corresponding air/ground call sign to civil aircraft operators engaged in domestic services on a repetitive basis.

Aircraft Weight and Balance Control (10-15-68).

Provides a method and procedures for weight and balance control.

121-1 Standard Maintenance Specifications Handbook (12-15-62).

Consolidated reprint 5-15-69, includes Changes 1 through 18.

Provides procedures acceptable to FAA which may be used by operators when establishing inspection intervals and overhaul times.

121-3H Maintenance Review Board Reports (2-7-68).

Adds the Boeing 727, Supplement No. 1; Boeing 737; Fairchild-Hiller FH-227; and Fairchild-Hiller FH-227, Revision 1 to the list of available Maintenance Review Board Reports.

121-6 Portable Battery-Powered Megaphones (1-5-66).

Sets forth an acceptable means for complying with rules (applicable to various persons operating under Part 121 of the Federal Aviation Regulations) that prescribe the installation of approved megaphones.

121-7 Use of Seat Belts by Passengers and Flight Attendants To Prevent Injuries (7-14-66).

Concerned with the prevention of injury due to air turbulence.

121-8 Additional Airport Aids—Runway Marking and Lighting—Air Carrier Turbojet Operations (9-19-66).

Emphasizes the importance of runway markings and approach slope guidance in assisting turbojet airplane pilots to touchdown at the proper runway point.

121-9 Maintenance of Evacuation Slides (9-22-66).

Provides information and guidance to air carriers and commercial operators in the maintenance of emergency evacuation slides.

121-10 Doppler Radar Navigational Aids (3-23-67).

States an acceptable means, not the only means, of compliance with the referenced sections of the FAR as they apply to persons operating under Part 121 who desire approval of Doppler RADAR navigation systems for use in their operations.

121-10 CH 1 (1-10-68).

Transmits a page change to the subject advisory circular.

121-11 Approval of Inertial Navigation Systems (INS) (3-23-67).

States an acceptable means, not the only means, of compliance with the referenced sections of the FAR as they apply to persons operating under Part 121 who desire approval of inertial navigation systems as the sole means of navigation in their operations.

121-11 CH 1 (1-10-68).

Transmits a page change to the subject advisory circular.

121-12 Wet or Slippery Runways (8-17-67).

Provides uniform guidelines in the application of the "wet runway" rule by certificate holders operating under FAR 121 (8-17-67).

121.195(d)-1 Alternate Operational Landing Distances for Wet Runways; Turbojet Powered Transport Category Airplanes (11-19-65).

Sets forth an acceptable means, but not the only means, by which the alternate provision of section 121.195(d) may be met.

123-1 Air Travel Clubs (10-17-68).

Sets forth guidelines and procedures to assist air travel clubs using large aircraft in meeting safety requirements of FAR Part 123.

135.155-1 Alternate Static Source for Altimeters and Airspeed and Vertical Speed Indicators (2-16-65).

Sets forth an acceptable means of compliance with provisions in FAR Part 135 and Part 23 dealing with alternate static sources.

135-1 Air Taxi Aircraft Weight and Balance Control (9-17-68).

Provides a method and procedures for developing a weight and balance control system for small aircraft operating in the air taxi fleet under FAR Part 135. 137-1 Agricultural Aircraft Operations (11-29-65).

Explains and clarifies the requirements of FAR Part 137 and provides additional information, not regulatory in nature, which will assist interested persons in understanding the operating privileges and limitations of this part.

## Schools and Other Certificated Agencies

SUBJECT No. 140

140-1D Consolidated Listing of FAA Certificated Repair Stations (7-1-68).

Gives the name, address, certificate number, and ratings of repair stations.

140-2E List of Certificated Pilot Flight and Ground Schools (1-1-69).

Lists FAA certificated pilot schools as of January 1969.

140-3A Approval of Pilot Training Courses Under Subpart D of Part 141 of the FAR (6-12-68).

The title is self-explanatory.

140-4 Use of Audio-Visual Courses in Approved Pilot Ground Schools Certificated Under Part 141 (8-7-68).

Informs operators of certificated pilot schools on the use of audio-visual training aids for instruction in approved ground school courses conducted under the FARs.

143-1B Ground Instructor Examination Guide — Basic — Advanced (4-18-67).

Designed to assist applicants preparing for the Basic or Advanced Ground Instructor Written Examination by outlining the required knowledge and by providing sample questions for practice. Revised in 1967. (\$1 GPO.) TD 4.408: G 91.

143-2A Ground Instructor—Instrument—Written Test Guide (9-29-67).

Provides information to applicants for the instrument ground instructor rating about the subject areas covered in the examination and illustrated by a study outline, a list of study materials, and a sample examination with answers. Reprinted in 1969. (\$0.70 GPO.) TD 4.8: G 91.

145.101-1A Application for Air Agency Certificate—Manufacturer's Maintenance Facility (3-10-69).

Explains how to obtain a repair station certificate.

147-2F Federal Aviation Administration Certificated Mechanic School Directory (7-15-69).

Provides a revised listing of all FAA certificated mechanic schools as of July 15, 1969.

149-2D Listing of Federal Aviation Administration Certificated Parachute Lofts (8-1-68).

Provides a revised list of all FAA certificated parachute lofts.

#### Airports

SUBJECT No. 150

DEFENSE READINESS PROGRAM

150/1930-1 Radiological Decontamination of Civil Airports (8-19-66).

Offers guidance in preattack preparations, emergency action and decontamination methods.

#### AIRPORT PLANNING

150/5040-1A Announcement of Report—Aviation Demand and Airport Facility Requirement Forecasts for Large Air Transportation Hubs Through 1980 (3-27-69).

Announces the availability of the new report and where to obtain it.

150/5040-2 Announcement of Report—Aviation Demand and Airport Facility Requirement Forecasts for Medium Air Transportation HUBS Through 1980 (5-22-69).

Announces the availability to the public, Federal Aviation Administration personnel, airport and local government planning officials, the aviation industry, and the interested public with forecasts of aviation demand and selected airport facility requirements for medium hubs through 1980.

150/5040-3 Announcement of Report—A Suggested Action Program for the Relief of Airfield Congestion at Selected Airports (6-19-69).

Announces the availability of the report to the public which identifies and analyzes the possible improvements leading to reduced aircraft delays at 18 of the Nation's highest density airports.

150/5050-2 Compatible Land Use Planning in the Vicinity of Airports (4-13-67).

Advises Federal Aviation Administration personnel, local government officials and the public of the availability of the following two reports prepared under the auspices of the FAA by the firm of Transportation Consultants, Inc. Compatible Land Use Planning On and Around Airports, and Aids Available for Compatible Land Use Planning Around Airports.

150/5050-3 Announcement of a Report Entitled "Planning the State Airport System" (1-31-69).

Advises of the availability of the report and how to obtain it.

150/5060-1A Airport Capacity Criteria.
Used in Preparing the National Airport Plan (7-8-68).

Presents the method used by the Federal Aviation Administration for determining when additional runways, taxiways, and aprons should be recommended in the National Airport Plan. The material is also useful to sponsors and engineers in developing Airport Layout Plans and for determining when additional airport pavement facilities should be provided to increase aircraft accommodation capacity at airports.

150/5060-2 Airport Site Selection (7-19-67).

Recommends procedures and provides guidance for analyzing potential airport sites.

150/5060-3 Airport Capacity Criteria Used in Long-Range Planning (4-7-69).

Makes available to the public the method used by the Federal Aviation Administration for determining the approximate practical hourly and practical annual capacities of various airport runway configurations.

150/5070-1 Rapid Transit Service for Metropolitan Airports (8-26-65).

Informs airport officials of a Federal assistance program for rapid transit.

150/5070-2 Planning the Metropolitan Airport (9-17-65). (Consolidated reprint 6-30-66 includes change 1.)

Provides guidance and methodology for planning the metropolitan airport system as a part of the comprehensive metropolitan planning program.

150/5070-3 Planning the Airport Industrial Park (9-30-65).

Provides guidance to communities, airport boards, and industrial developers for the planning and development of Airport Industrial Parks.

150/5070-4 Planning for Rapid Urbanization Around Major Metropolitan Airports (3-31-66).

Alerts planning agencies to the need for developing appropriate planning programs to guide rapid urbanization in the vicinity of major metropolitan airports and suggests procedures for such planning programs.

150/5090-1 Regional Air Carrier Airport Planning (2-2-67).

This circular: (1) Informs local and State governments, airport operators, and area planners of a Federal policy concerning the development of a single airport to serve two or more cities and their environs; and (2) provides such planners with guidance for evaluating the feasibility of establishing such regional airports.

FEDERAL-AID AIRPORT PROGRAMS

150/5100-3A Federal-aid Airport Program-Procedures Guide for Sponsors (9-20-68).

Provides guidance to public agencies that sponsor or propose to sponsor projects under the Federal-aid Airport Program (FAAP) authorized by the Federal Airport Act.

150/5100-4 Airport Advance Planning (1-12-68).

Provides an explanation of the FAA advance planning program.

150/5100-5 Land Acquisition in the Federal-Aid Airport Program (1-30-69).

Provides general information to sponsors of airport development projects un-

der the Federal-aid Airport Program on the eligibility of land acquisition and extent of Federal participation in land acquisition costs.

150/5100-6 Labor Requirements in Federal-Aid Airport Program Contracts (6-6-69).

Covers the basic labor requirements applicable to the Federal-aid Airport Program (FAAP). Intended primarily for the guidance of those public agencies sponsoring projects under the program and the contractors and subcontractors engaged in work under a project.

SURPLUS AIRPORT PROPERTY CONVEYANCE PROGRAMS

150/5150-2 Federal Surplus Personal Property for Public Airport Purposes (6-27-68).

Outlines policies and procedures for State and local agencies applying for and acquiring surplus Federal personal property for public airport purposes.

150/5150-2 CH 1 (4-22-69).

Revises the flow of copies of the SF 123 to provide for more accurate review of donated property.

AIRPORT COMPLIANCE PROGRAM

150/5190-1 Minimum Standards for Commercial Aeronautical Activities on Public Airports (8-18-66).

Gives to owners of public airports information helpful in the development and application of minimum standards for commercial aeronautical activities.

150/5190-2 Exclusive Rights at Airports (9-2-66).

Provides basic information and guidance on FAA policy concerning exclusive rights at public airports on which Federal funds, administered by the FAA, have been expended.

150/5190-3 Model Airport Zoning Ordinance (1-16-67).

Provides a guide to be used in preparing airport zoning ordinances. This model will require modification and revision to suit circumstances and fulfill State and local law.

AIRPORT SAFETY—GENERAL

150/5200-1 Bird Hazards to Aviation (3-1-65).

Discusses certain steps that can be taken toward reducing or solving the bird strike problem on and near airports.

150/5200-2 Bird Strike/Incident Report Form (11-27-65).

Informs military and civil aviation organizations that FAA Form 3830, "Bird Strike/Incident Report Form," is available for use in reporting bird hazards and accidents/incidents to aircraft.

150/5200-3 Bird Hazards to Aircraft (10-7-66).

Transmits the latest published information concerning the reduction of bird strikes on aircraft.

150/5200-4 Foaming of Runways (12-21-66).

Discusses runway foaming and suggests procedures for providing this service.

150/5200-5 Considerations for the Improvement of Airport Safety (2-2-67).

Emphasizes that, in the interest of accident/incident prevention, airport management should conduct self-evaluations and operational safety inspections. An exchange of information and suggestions for the improvement of airport safety is also suggested.

150/5200-6A Security of Aircraft at Airports (6-28-68).

Directs attention to the problem of pilferage from aircraft on airports and suggests action to reduce pilferage and the hazards that may result therefrom.

150/5200-7 Safety on Airport During Maintenance of Runway Lighting (1-24-68).

Points the possibility of an accident occurring to airport employees caused by electrocution

150/5200-8 Use of Chemical Controls to Repel Flocks of Birds at Airports (5-2-68).

Acquaints airport operators with new recommendations on the use of chemical methods for dispersing flocks of birds,

150/5200-9 Bird Reactions and Scaring Devices (6-26-68).

Transmits a report on bird species and their responses and reactions to scaring devices.

150/5200-10 Airport Emergency Operations Planning (7-26-68).

Provides guidance to airport management and disaster control personnel in the preparation of plans for emergency actions at civil airports.

150/5200-11 Airport Terminals and the Physically Handicapped (11-27-68).

Discusses the problems of the physically handicapped air traveler and suggests features that can be incorporated in modification or new construction of airport terminal buildings.

150/5210-2 Airport Emergency Medical Facilities and Services (9-3-64).

Provides information and advice so that airports may take specific voluntary preplanning actions to assure at least minimum first-aid and medical readiness appropriate to the size of the airport in terms of permanent and transient personnel.

150/5210-4 FAA Aircraft Fire and Rescue Training Film, "Blanket for Survival" (10-27-65).

Provides information on the purpose, content, and availability of the subject training film.

150/5210-5 Painting, Marking, and Lighting of Vehicles Used on an Airport (8-31-66).

Makes recommendations concerning safety, efficiency, and uniformity in the interest of vehicles used on the aircraft operational area of an airport.

150/5210-6 Aircraft Fire and Rescue Facilities and Extinguishing Agents (9-7-66).

Furnishes guidance for estimating the facilities necessary to provide adequate aircraft fire and rescue service at civil airports.

150/5210-7 Aircraft Fire and Rescue Communications (10-28-66).

Provides airport management with information helpful in the establishment of communication and alarm facilities. Such facilities alert and guide those personnel who must deal with aircraft ground emergencies.

150/5210-8 Aircraft Firefighting and Rescue Personnel and Personnel Clothing (1-13-67).

Provides guidance concerning the manning of aircraft fire and rescue trucks, the physical qualifications that personnel assigned to these trucks should meet, and the protective clothing with which they should be equipped.

150/5210-9 Airport Fire Department Operating Procedures During Periods of Low Visibility (10-27-67).

Suggests training criteria which airport management may use in developing minimum response times for aircraft fire and rescue trucks during periods of low visibility.

150/5210-10 Airport Fire and Rescue Equipment Building Guide (12-7-67).

The title is self-explanatory.

150/5210-11 Response to Aircraft Emergencies (4-15-69).

Informs airport operators and others of an existing need for reducing aircraft firefighting response time, and outlines a uniform response time goal of 2 minutes within aircraft operational areas on airports.

150/5220-1 Guide Specification for a Light-Weight Airport Fire and Rescue Truck (7-24-64).

Describes a vehicle with performance capabilities considered as minimum for an acceptable light rescue truck.

150/5220-2 Guide Specification for 1,800-Gallon Aircraft Fire and Rescue Truck (7-24-64).

Describes a vehicle possessing the minimum performance capabilities recommended for an acceptable aircraft fire and rescue truck.

150/5220-3 Guide Specification for 1,000-Gallon Aircraft Fire and Rescue Truck (3-9-67).

The title is self-explanatory.

Marking, and 150/5220-4 Water Supply Systems for Used on an Air-Aircraft Fire and Rescue Protection (12-7-67).

The title is self-explanatory.

150/5220-5 Guide Specification for a Combination Foam and Dry Chemical Aircraft Fire and Rescue Truck (12-29-67).

Specification requirements developed by FAA to assist airport management in developing local procurement specifications for fire and rescue trucks.

150/5220-6 Guide Specification for 1,000-Gallon Tank Truck (4-10-68).

Assists airport management in the development of local procurement specifications.

150/5220-7 Guide Specification for 2,500-Gallon Aircraft Fire and Rescue Truck (8-30-68).

Guide Specification developed to assist airport management in the development of local procurement specifications.

150/5220-8 Guide Specification for 2,000-Gallon Tank Truck (6-13-69).

Assist airport management in the development of local procurement specifications for 2,000-gallon tank truck.

150/5230-1 Suggestions for Airport Safety Self-Inspection (3-30-64).

Summarizes the functional statements, procedures, forms, and schedules on safety self-inspection now in use at many U.S. civil airports.

150/5230-2 Guide Specification for Fire Extinguishing System (Foam) for Heliports (4-14-65).

Contains guidance material which may be used by airport management in the development of local procurement specifications.

150/5230-3 Fire Prevention During Aircraft Fueling Operations (4-8-69).

This advisory circular provides information on fire preventative measures which aircraft servicing personnel should observe during fueling operations.

CIVIL AIRPORTS EMERGENCY PREPAREDNESS 150/5240-1A Airport Disaster Control Guide (10-31-67).

Acts as a guide to reducing or avoiding problems imposed by enemy nuclear attack.

DESIGN, CONSTRUCTION, AND MAINTE-NANCE-GENERAL

150/5300-2 Airport Design Requirements for Terminal Navigational Aids (3-30-64).

Provides information regarding location, functions, and citing requirements of air navigation aids on and in the immediate vicinity of airports.

150/5300-3 Adaptation of TSO-N18 Criterion to Clearways and Stopways (10-18-64).

Sets forth standards recommended by the FAA for guidance of the public for the adaptation of TSO-N18 criterion to clearways and stopways.

150/5300-4A Utility Airports—Air Access to National Transportation (5-6-69).

Presents recommendations of the Federal Aviation Administration for the design of utility airports. These airports are developed for general aviation operations and this guide has been prepared to encourage and guide persons interested in their development. (\$1.75 GPO.) TD 4.8: A1 7/968.

150/5300-5 Airport Reference Point (9-26-68).

Defines and presents the method for calculating an airport reference point.

150/5300-6 Airport Design Standards, General Aviation Airports, Basic and General Transport (7-14-69).

Provides recommended design criteria for the development of larger than general utility airports.

150/5310-2 Airport Planning and Airport Layout Plans (9-19-68).

Contains guidance material for airport planning and preparation of airport layout plans. It applies to any airport. It is also used as a basis for determining the acceptability of airport layout plans prepared or revised with Federal cost participation under the Federal-aid Airport Program.

150/5310-3 FAA Order 5310.2, Relocating Thresholds Due to Obstructions at Existing Runways (5-27-68).

Announces the issuance of instructions to FAA field personnel on the displacement or relocation of thresholds.

150/5320-5A Airport Drainage (1-28-66).

Provides guidance for airport managers, engineers, and the public in the design and maintenance of airport drainage systems. Published in 1965. (\$0.45 GPO.) FAA 8.8: D 78.

150/5320-6A Airport Paving (5-9-67).

Provides data for the design and construction of pavements at civil airports. 150/5320-6A CH 1 (6-11-68).

Transmits page changes and adds new chapter 6 to basic AC.

150/5325-2A Airport Surface Areas Gradient Standards (5-12-66).

Sets forth standards recommended by FAA for guidance of the public in establishing the gradient of airport surface areas used for landing, takeoff, and other aircraft ground movement.

150/5325-3 Background Information on the Aircraft Performance Curves for Large Airplanes (1-26-65).

Provides airport designers with information on aircraft performance curves for design which will assist them in an objective interpretation of the data used for runway length determination.

150/5345-3A Specification for L-821 Airport Lighting Panel for Remote Control of Airport Lighting (10-20-67).

Required for FAAP project activity.

150/5345-3A CH 1 (6-11-68).

Corrects case dimensions for the size 4 panel and other page changes.

150/5345-3A CH-2 (9-17-69).

Provides corrected drawings for the size 4 panel layout dimensions and the case dimensions.

150/5345-4 Specification for L-289 Internally Lighted Airport Taxi Guidance Sign (10-15-63).

Required for FAAP project activity, 150/5345-4 CH 1 (10-28-66).

Transmits page changes to the subject advisory circular. This change provides for a new Alloy 360 in the die casting process.

150/5345-5 Specification for I-847 Circuit Selector Switch, 5000 Volt 20 Ampere (9-3-63).

Required for FAAP project activity.

150/5345-6 Specification for L-809 Airport Light Base and Transformer Housing (9-3-63).

Required for FAAP project activity.

150/5345-7 Specification for L-824 Underground Electrical Cables for Airport Lighting Circuits (11-4-63). Required for FAAP project activity.

150/5345-9B Specification for L-819 Fixed Focus Bidirectional High Intensity Runway Lights (6-27-67).

Describes the subject specification requirements.

150/5345-10B Specification for L-828 Constant Current Regulator With Stepless Brightness Control (4-8-68).

Required for FAAP project activity.

150/5345-11 Specification for L-812 Static Indoor Type Constant Current Regulator Assembly, 4 Kw and 7½ Kw, With Brightness Control for Remote Operation (3-2-64).

Required for FAAP project activity.

150/5345-12A Specification for L-801 Beacon (5-12-67).

Describes the subject specification requirements.

150/5345-13 Specification for L-841 Auxiliary Relay Cabinet Assembly for Pilot Control of Airport Lighting Circuits (1-6-64).

Required for FAAP project activity.

150/5345-15 Specification for L-842 Airport Centerline Light (1-6-64).

Required for FAAP project activity.

150/5345-16 Specification for L-843 Airport In-Runway Touchdown Zone Light (1-20-64).

Required for FAAP project activity.

150/5345-17 Specification for L-845 Semiflush Inset Prismatic Airport Light (3-3-64).

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Describes the subject specification requirements.

150/5345-18 Specification for L-811 Static Indoor Type Constant Current Regulator Assembly, 4 Kw; With Brightness Control and Runway Selection for Direct Operation (3-3-64).

Required for FAAP project activity.

150/5345-18 CH 1 (5-28-64).

Advises that a detail requirement is not applicable to the circular.

150/5345-19 Specification for L-838 Semiflush Prismatic Airport Light (5-11-64).

Describes the subject specification requirements.

150/5345-20 Specification for L-802 Runway and Strip Light (6-24-64).

Describes the subject specification requirements.

150/5345-20 CH 1 (8-31-64).

Provides amended information for the basic advisory circular.

150/5345-20 CH 2 (1-14-66).

Provides new dimensions for the thickness of the metal stake and an organizational change.

150/5345-20 CH 3 (10-28-66).

Transmits page changes to the subject advisory circular. This change provides for a new Alloy 360 in the die casting process.

150/5345-20 CH 4 (8-5-69).

Describes the subject specification requirements for a runway and strip light.

150/5345-21 Specification for L-813 Static Indoor Type Constant Current Regulator Assembly; 4 Kw and 7½ Kw; for Remote Operation of Taxiway Lights (7-28-64).

Describes the subject specification requirements.

150/5345-22 Specification for L-834 Individual Lamp Series-to-Series Type Insulating Transformer for 5,000 Volt Series Circuit (10-8-64).

Describes the subject specification requirements.

150/5345-23 Specification for L-822 Taxiway Edge Light (10-13-64).

Describes the subject specification requirements.

150/5345-23 CH 1 (1-14-66).

Provides new dimensions for the thickness of the metal stake and an organizational change.

150/5345-23 CH 2 (10-28-66).

Transmits page changes to the subject Describes advisory circular. This change provides requirements.

for a new Alloy 360 in the die casting process.

150/5345-23 CH 3 (8-5-69).

Describes the subject specification requirements for a taxiway edge light.

150/5345-24 Specification for L-849 Condenser Discharge Type Flashing Light (6-30-65).

Describes the subject specification requirements for a condenser discharge type flashing light.

150/5345-24 CH 1 (6-14-66).

Deletes a detail requirement.

150/5345-25 Specification for L-848 Medium Intensity Approach Light Bar Assembly (6-30-65).

Describes the subject specification requirements for a medium intensity approach light bar assembly.

150/5345-26 Specification for L-823 Plug and Receptacle, Cable Connectors (10-5-64).

Describes the subject specification requirements.

150/5345-27A Specification for L-807 Eight-foot and Twelve-foot Unlighted or Externally Lighted Wind Cone Assemblies (6-16-69).

Describes the subject specification requirements for a hinged steel pole support, an anodized tapered aluminum hinged base pole support, and an "A" frame fixed support with a pivoted center pipe support.

150/5345-28 Specification for L-851 Abbreviated Visual Approach Slope Indicator System (10-28-66).

Describes the subject specification requirements for abbreviated visual approach slope indicator system (AVASI) equipment.

150/5345-29 FAA Specification L-852, Light Assembly, Airport Taxiway Centerline (3-18-68).

Describes, for public guidance, FAA Specification L-852 which establishes the performance requirements and pertinent construction details for bidirectional semiflush inset light assemblies for lighting airport taxiway centerlines.

150/5345-30A Specification for L-846 Electrical Wire for Lighting Circuits To Be Installed in Airport Pavements (2-3-67).

Describes, for the guidance of the public, subject specification requirements for electrical wire.

150/5345-31 Specification for L-833 Individual Lamp Series-to-Series Type Insulating Transformer for 600 Volt or 3,000 Volt Series Circuits (12-3-64).

Describes the subject specification requirements.

150/5345-32 Specification for L-837 Large-Size Light Base and Transformer Housing (1-13-65).

Describes the subject specification requirements.

150/5325-3 CH 1 (5-12-66).

Transmits a revision to the effective runway gradient standards.

150/5325-4 Runway Length Requirements for Airport Design (4-5-65).

Presents aircraft performance curves and sets forth standards for the determination of runway lengths to be provided at airports. The use of these standards is required for project activity under the Federal-aid Airport Program when a specific critical aircraft is considered as the basis for the design of a runway.

150/5325-4 CH 1 ( 5-65).

Provides amended information for the basic advisory circular and includes aircraft performance curves for the BAC 1-11.

150/5325-4 CH 2 (9-21-63).

Transmits aircraft performance curves for the Boeing 707-300C and the Fairchild F-27 and F-27B.

150/5325-4 CH 3 (4-25-66).

Transmits aircraft performance curves for the Douglas DC-8-55, DC-8F-55, and DC-9-10 Series, the Fairchild F-27J, and the Nord 262.

150/5325-4 CH 4 (5-12-66).

Transmits a revision to the effective runway gradient standards.

150/5325-4 CH 5 (7-13-66).

Transmits aircraft performance curves for the Douglas DC-9-10 Series equipped with Pratt & Whitney JT8D-1 Engines.

150/5323-4 CH 6 (12-8-66).

It is recommended that turbojet powered aircraft use more runway length when landing under wet or slippery, rather than under dry conditions. This change furnishes a basis for estimating the additional recommended length.

150/5325-4 CH 7 (2-7-67).

Presents designs curves for landing and takeoff requirements of airplanes in common use in the civil fleet. Also presented are instructions on the use of these design curves and a discussion of the factors considered in their development.

150/5325-4 CH 8 (11-8-67).

Transmits aircraft performance curves for the Boeing 747, Convair 640 (340D or 440D), and Douglas DC-9-30 Series.

150/5325-5A Aircraft Data (1-12-68).

Presents a listing of principal dimensions of aircraft affecting airport design for guidance in aircraft development.

150/5325-6 Effects of Jet Blast (4-15-65).

Presents the criteria for treatment of jet blast effects which are acceptable in accomplishing a project meeting the eligibility requirements of the Federalaid Airport Program.

150/5325-7 Is Your Airport Ready for the Bocing 747 (1-23-68).

Presents a preliminary condensed survey of today's airport design criteria

and their suitability to the presently known characteristics of the Boeing 747 airplane.

150/5325-8 Compass Calibration Pad (5-8-69).

Provides guidelines for the design, location on the airport, and construction of a compass calibration pad, and basic information concerning its use in determining the deviation error in an aircraft magnetic compass.

150/5330-2A Runway/Taxiway Widths and Clearances for Airline Airports (7-26-68),

Presents the Federal Aviation Administration recommendations for landing strip, runway, and taxiway widths and clearances at airports served by certificated air carriers.

150/5330-3 Wind Effect on Runway Orientation (5-5-66).

Provides guidance for evaluating wind conditions and determining their effect on the orientation of runways.

150/5335-1 Airport Taxiways (1-28-65).

Provides the criteria for airport taxiways which are acceptable in accomplishing a project meeting the eligibility requirements of the Federal-aid Airport Program.

150/5335-1 CH 1 (11-15-66).

Taxiways designed for two- and threeengine jet powered air carrier airplanes may have a minimum width of 60 feet. This change provides guidance for the design of such taxiway design widths.

150/5333-2 Airport Aprons (1-27-65).

Provides the criteria for airport aprons which are acceptable in accomplishing a project meeting the eligibility requirements of the Federal-aid Airport Program.

150/5340-1B Marking of Serviceable Runways and Taxiways (4-2-69).

Sets forth standards and practices for the guidance of the public in marking and remarking serviceable runways and taxiways. Required for FAAP.

150/5340-4B Installation Details for Runway Centerline and Touchdown Zone Lighting Systems (5-6-69).

Describes standards for the design and installation of runway centerline and touchdown zone lighting systems.

150/5340-5 Segmented Circle Airport Marker System (8-1-63).

Recommends an airport marking system of pilot aids and traffic control devices. Required for FAAP project activity.

150/5340-7A Marking and Lighting of Deceptive, Closed, and Hazardous Areas on Airports (1-10-68).

Describes standards for marking deceptive, closed, and hazardous areas on airports.

150/53/40-8 Airport 51-foot Tubular Beacon Tower (6-11-64).

Provides design and installation details on the subject tower.

130/5340-9 Prefabricated Metal Housing for Electrical Equipment (8-18-64).

Provides design and installation details on the subject metal housing.

150/5340-13A High Intensity Runway Lighting System (4-14-67).

Provides corrected curves for estimating loads in high intensity series circuits.

150/5340-14A Economy Approach Lighting Aids (3-7-67).

Describes standards for the design, installation, and maintenance of economy approach lighting aids.

150/5340-15A Taxiway Edge Lighting System (11-1-67).

Describes standards for the design, installation, and maintenance of a taxiway edge lighting system.

150/5340-15A CH I (4-2-68).

Transmits change to basic AC.

150/5340-16A Medium Intensity Runway Lighting System (12-19-67).

Describes standards for the design, installation, and maintenance of a medium intensity runway lighting system.

150/5340-17 Standby Power for Non-FAA Airport Lighting Systems (1-25-68).

Describes standards acceptable for the design, installation, and maintenance of standby power for nonagency owned airport visual aids associated with the National Airspace System.

150/5340-18 Taxiway Guidance System (9-27-68).

Describes the recommended standards for design, installation, and maintenance of a taxiway guidance sign system.

150/5340-19 Taxiway Centerline Lighting System (11-14-68).

Describes the recommended standards for design, installation, and maintenance of a taxiway centerline lighting system.

150/5340-20 Installation Details and Maintenance Standards for Reflective Markers for Airport Runway and Taxiway Centerlines (2-17-69).

Describes standards for the installation and maintenance of reflective markers for airport runway and taxiway centerlines.

150/5345-1B Approved Airport Lighting Equipment (10-30-68).

Contains lists of approved airport lighting equipment and manufacturers qualified to supply such equipment.

150/5345-2 Specification for L-810 Obstruction Light (11-4-63).

Required for FAAP project activity.

150/5345-2 CH 1 (10-28-66).

Transmits page changes to the subject advisory circular. This change provides for a new Alloy 360 in the die casting process.

150/5345-33 Specification for L-844 Individual Lamp Series-to-Series Type Insulating Transformer for 5000 Volt Series Circuit 20/6.6 Amperes 200 Watt (1-13-65).

Describes the subject specification requirements.

150/5345-34 Specification for L-839 Individual Lamp Series-to-Series Type Insulating Transformer for 5000 Volt Series Circuit 6.6/20 Amperes 300 Watt (1-13-65).

Describes the subject specification requirements.

150/5345-35 Specification for L-816 Circuit Selector Cabinet Assembly for 600 Volt Series Circuits (1-28-65).

Describes the subject specification requirements.

150/5345-36 Specification for L-808 Lighted Wind Tee (2-3-65).

Describes the subject specification requirements.

150/5345-37B FAA Specification I-850, Light Assembly Airport Runway Centerline and Touchdown Zone (1-8-68).

Revises subject light assembly.

150/5345-38 Changes to Airport Lighting Equipment (3-23-67).

The title is self-explanatory.

150/5345-39 FAA Specification L-853, Runway and Taxiway Centerline Reflective Markers (1-10-69).

Describes specification requirements for L-853 Runway and Taxiway reflective markers for guidance of the public,

150/5345-40 Specification for L-854 Radio Controls (3-21-69).

Describes specification requirements for guidance of the public.

150/5355-1 Diagrammatic Maps and Location Signs at Airports (3-21-69).

Informs airport authorities of the desirability to provide diagrammatic maps of facilities within terminal buildings and of the need for clearly marked locations signs at airports, especially at those used by international travelers.

150/5355-2 Fallout Shelters in Terminal Buildings (4-1-69).

Furnishes guidance for the planning and design of fallout shelters in airport terminal buildings.

150/5360-1 Airport Service Equipment Buildings (4-6-64).

Provides guidance on design of buildings for housing equipment used in maintaining and repairing operational areas.

150/5360-2 Airport Cargo Facilities (4-6-64).

Provides guidance material on air cargo facilities.

150/5360-3 Federal Inspection Service Facilities at International Airports (4-1-66).

Describes and illustrates recommended facilities for inspection of passengers,

baggage, and cargo entering the United States through international airport terminals. The material is for the guidance of architect-engineers and others interested in the planning and design of these airport facilities.

150/5370-1A Standard Specifications for Construction of Airports (5-28-68).

Contains specification items for construction of airports and other related information. Acceptable for FAAP project activity. Published in 1968. (\$3.50 GPO.) TD 4.24: 968.

150/5370-2 Safety on Airports During Construction Activity (4-22-64).

Provides guidelines concerning safety at airports during periods of construction activity.

150/5370-4 Procedures Guide for Using the Standard Specifications for Construction of Airports (5-29-69).

Provides guidance to the public in the use and application of the Standard Specifications for Construction of Airports.

150/5380-1 Airport Maintenance (4-14-63).

Provides a basic checklist and suggestions for an effective airport maintenance program.

150/5380-2A Snow Removal Techniques Where In-Pavement Lighting Systems Are Installed (12-24-64).

Provides information on damage to inpavement lighting fixtures by snow removal equipment and recommends procedures to avoid such damage.

150/5380-3 Cleaning of Runway Contamination (6-28-68).

Provides information to the aviation industry relative to cleaning rubber deposits, oil, grease, and jet aircraft exhaust deposits from runway surfaces.

150/5380-4 Ramp Operations During Periods of Snow and Ice Accumulation (9-11-68).

Directs attention to an increased accident potential when snow or ice accumulates on the surfaces of ramps and aircraft parking and holding areas and suggests some measures to reduce this potential.

150/5390-1 Heliport Design Guide (11-3-64). (Consolidated reprint 6-10-68 includes Change 1.)

Contains design guidance material for the development of heliports, both surface and elevated, to serve single- and multi-engine helicopters operating under visual flight rules.

#### Air Navigational Facilities

SUBJECT No. 170

170-1 Operation and Use of Approved Lights (ALS) and Sequenced Flashing Lights (SFL) Systems (1-14-63).

Advises airspace users of the operation and use of the ALS and SFL systems.

170-2 Implementation of ILS Channels 11 Through 20 (10-16-63).

Advertises that ILS Channels 11 through 20 are now being used in the United States and encourages owners to equip their aircraft with 20-channel capability.

170-3B Distance Measuring Equipment (DME) (11-8-65).

Presents information on DME and some of its uses to pilots unfamiliar with this navigational aid.

170-6A Use of Radionavigation Test Generators (3-30-66).

Gives information received from the Federal Communications Commission as to the frequencies on which the FCC will license test generators (used to radiate a radionavigation signal) within the scope of its regulations and gives additional information to assist the user when checking aircraft navigation receivers.

170/6850-1 Aeronautical Beacons and True Lights (8-28-68).

Describes FAA standards for the installation and operation of aeronautical beacons serving as true lights.

170-7 Decommissioning of ILS Middle Compass Locators (10-29-65).

Disseminates information regarding the FAA program for decommissioning of compass locators associated with ILS middle markers.

170-8 Use of Common Frequencies for Instrument Landing Systems Located on Opposite Ends of the Same Runway (11-7-66).

In the future, common frequencies may be assigned to like components of two instrument landing systems serving opposite ends of the same runway. This will include the localizers, glide slopes, and associated outer and middle marker compass locators (LOM and LMM).

170-9 Criteria for Acceptance of Ownership and Servicing of Civil Aviation Interest(s) Navigational and Air Traffic Control Systems and Equipment (11-26-68).

Contains a revised FAA policy under which the FAA accepts conditional ownership of equipment and systems from civil aviation interests, without the use of Federal funds, and operates, maintains, and provides the logistic support of such equipment.

171-1 Estimating Packing and Shipping Costs for Export Shipments for ATC and Navaid Equipments (2-18-66).

Assists personnel engaged in preparing packing and shipping estimates of air navigation and traffic control equipments for overseas shipment.

#### Administrative

SUBJECT No. 180

183.29-1D Designated Engineering Representatives (2-28-69).

Lists the Designated Engineering Representatives available for consulting work. Designated Engineering Representatives, as direct representatives of the Federal Aviation Administration, are

authorized to approve certain types of data as complying with the Federal Aviation Regulations within particular categories; such as structural, systems and equipment, powerplant, flight analyst, flight test pilot, and engine.

#### **Flight Information**

SUBJECT No. 210

210-1 National Notice to Airmen System (2-8-64).

Announces FAA policy for the preparation and issuance of essential flight information to pilots and other aviation interests.

210-2A Established Schedule for Flight Information Effective Dates (9-19-69).

Emphasizes the importance of adherence to the established schedule of effective dates for flight information, and provides a copy of the schedule through June 1971.

211-1 Content Criteria for Airman's Information Manual (3-15-66).

Announces the FAA policy for inclusion of aeronautical data in the Airman's Information Manual (AIM).

211-2 Recommended Standards for IFR Aeronautical Charts (3-20-67).

Sets forth standards recommended by the Federal Aviation Administration for the guidance of the public in the issuance of IFR, aeronautical charts for use in the National Airspace System (NAS).

211-3 Aviation Fuel Code Used in Flight Information Publications (5-19-67).

Transmits information concerning the change in aviation fuel codes used in FAA reports and publications, NATO symbols to be used.

#### Internal Directives

Contractions Handbook, 7340.1B (9-16-69).

Gives approved word and phrase contractions used by personnel connected with air traffic control, communications, weather, charting and associated services. (\$3.75 Sub.—GPO.) TD 4.308: C 76/969.

Location Identifiers, 7350.1L.

Incorporates all authorized 3-letter location identifiers for special use in United States, worldwide, and Canadian assignments. Dated 5-15-69. (\$6 Sub.—GPO.) TD 4.310:.

Flight Services, 7110.10 (4-1-69).

This handbook consists of two parts. Part I, the basic, prescribes procedures and phraseology for use by personnel providing flight assistance and communications services. Part II, the teletype-writer portion, includes Services A and B teletypewriter operating procedures, pertinent International Teletypewriter Procedures, and the conterminous U.S. Service A Weather Schedules. Supersedes Aeronautical Communications and Pilot Services, dated 3-3-66. (\$9-Sub. GPO.) TD 4.308: F 64.

International Flight Information Manual, Vol. 17 (April 1969).

This Manual is primarily designed as a preflight and planning guide for use by U.S. nonscheduled operators, business and private aviators contemplating flights outside of the United States.

The Manual, which is complemented by the International Notams publication, contains foreign entry requirements, a directory of aerodromes of entry including operational data, and pertinent regulations, and restrictions. It also contains passport, visa, and health requirements for each country. Published annually with quarterly amendments. (\$3—Annual Sub. GPO.) TD 4.309: 16.

International Notams, Vol. 22 (April 1969).

Covers notices on navigational facilities and information on associated aeronautical data generally classified as "Special Notices". Acts as a notice-to-airmen service only. Published weekly. (\$5—Annual Sub. GPO.) TD 4.11:

Airman's Information Manual:

Part 1—Basic Flight Manual and ATC Procedures.

This part is issued quarterly and contains basic fundamentals required to fly in the National Airspace System; adverse factors affecting Safety of Flight; Health and Medical Facts of interest to pilots; ATC information affecting rules, regulations and procedures; a Glossary of Aeronautical Terms; U.S. Entry and Departure Procedures, including Airports of Entry and Landing Rights Airports; Air Defense Identification Zones (ADIZ); Designated Mountainous Areas; Scatana, and Emergency Procedures. (Annual Sub. \$4, Foreign mailing—\$1 additional. GPO.) TD 4.12: pt. 1/.

#### Part 2-Airport Directory.

This part is issued semiannually and contains a Directory of all Airports, Seaplanes Bases, and Heliports in the conterminous United States, Puerto Rico, and the Virgin Islands which are available for transient civil use. It includes all of their facilities and services, except communications, in codified form. Those airports with communications are also listed in Part 3 which reflects their radio facilities. A list of new and permanently closed airports which updates this part is contained in Part 3.

Included, also, is a list of selected Commercial Broadcast Stations of 100 watts or more of power and Flight Service Stations and Weather Bureau telephone numbers. (Annual Sub. \$4, Foreign mailing—\$1 additional. GPO.) TD 4.12: pt. 2/.

Parts 3 and 3A—Operational Data and Notices to Airmen.

Part 3 is issued every 28 days and contains an Airport/Facility Directory containing a list of all major airports with communications; a tabulation of Air Navigation Radio Aids and their assigned frequencies; Preferred Routes; Standard Instrument Departures (SIDs); Substitute Route Structures; a Sectional Chart Bulletin, which updates Sectional charts cumulatively; Special

General and Area Notices; a tabulation of New and Permanently Closed Airports, which updates Part 2; and Area Navigation Routes.

Part 3A is issued every 14 days and contains Notices to Airmen considered essential to the safety of flight as well as supplemental data to Part 3 and Part 4. (Annual Sub. \$20, Foreign mailing—\$5 additional GPO.) TD 4.12: pt. 3/.

Part 4—Graphic Notices—Supplemental Data.

Part 4 is issued semiannually and contains abbreviations used in all parts of AIM; Parachute Jump Areas; VOR Receiver Check Points; Special Notice Area Graphics; and Heavy Wagon and Oil Burner Routes.

Future editions will be expanded to include Special Terminal Area Charts and data not subject to frequent change. (Annual Sub. \$1.50, Foreign mailing—\$0.50 additional. GPO.) TD 4.12; pt. 4/.

Aircraft Type Certificate Data Sheets and Specifications.

Contains all current aircraft specifications and type certificate data sheets issued by the FAA. Monthly supplements provided. (\$20—Sub., Foreign mailing—\$5 additional. GPO.) TD 4.15: 967.

Aircraft Engine and Propeller Type Certificate Data Sheets.

Contains all current aircraft engine and propeller type certificate data sheets and specifications issued by FAA. Monthly supplements provided. (\$16—\$4b., Foreign mailing—\$4 additional, GPO.) TD 4.15/2: \$68.

Summary of Supplemental Type Certificates.

Contains all supplemental type certificates issued by FAA regarding design changes in aircraft, engines, or propellers. List includes description of change, the model and type certificate number, the supplemental type certificate number, and the holder of the change. Quarterly supplements provided. (\$9—Sub., Foreign mailing—\$3.50 additional. GPO.) FAA 5.12: 965.

## STATUS OF THE FEDERAL AVIATION REGULATIONS

#### As of October 31, 1969

IMPORTANT NOTICE

The Federal Aviation Administration is reissuing the Federal Aviation Regulations (FAR) in a volume system to be sold on a subscription basis by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

The purchase of a FAR volume will establish your subscription service with the Superintendent of Documents for automatic receipt of changes to the volume as issued by FAA.

The volume structure is:

Volume	FAR Part
I	1.
II	11, 13, 15, 21, 37, 39, 45, 47
	49, 183, 185, 187, 189.
III	23, 25.
IV	27, 29, 31, 33, 35.
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VI.	91, 93, 99, 101, 103, 105,

Volume	FAR Part
VIII IX	121, 123, 127, 129. 133, 125, 137. 61, 63, 65, 67, 141, 143, 147. 151, 153, 155, 159, 165, 167. 71, 73, 75, 77, 95, 97, 167, 169, 171.

As each volume is issued, an availability notification providing price and an order form will be issued and distributed by the Superintendent of Documents. If you are now on an FAA mailing list to receive Changes to any FAR Part, you will receive this notice.

However, until a Part is grouped into its respective Volume and the Volume is for sale, the present system of obtaining the Part and Changes thereto will remain in effect.

At the time of publishing this checklist, orders are being accepted by the Superintendent of Documents for the following Volumes:

Vol- ume	Published	Price	Trans- mittals
1	May 1969	\$1,50 (Foreign mailing— 50 cents additional.).	
II	July 1969	\$8 (Foreign mailing—\$2 additional.).	1
V	July 1969,	\$3 (Foreign mailing—75 cents additional.).	1
v1	August 1969.		1
x	September 1969.	\$4.50 (Foreign malling - \$1.25 additional.).	
X1,	October 1969.	\$2.75 (Foreign malling — 75 cents additional.).	

Individual FAR Parts not as yet reissued in the Volume system are still sold by the Superintendent of Documents at the prices shown in the following list. Parts with a (†) preceding the number are available in the Volumes as indicated above. Changes to Parts not in Volumes will be provided by FAA. An order form for this service is included in the front of the FAR Part for your convenience.

Instructions for ordering. Orders for the FARs should include remittance by check or money order made payable to the Superintendent of Documents, and should be addressed to:

Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Orders from foreign countries, except Canada and Mexico, should include an additional amount of one-fourth the purchase price to cover foreign mailing. Remittance should be by International Money Order or by a draft on a U.S. bank.

FAR part No.	Title	Effective date	Price	Changes			
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13 15	Enforcement Procedures.  Nondiscrimination in Federally Assisted Programs of the Federal Avia-	11-10-62					
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\*Changes to individual airspace designations and airways descriptions, individual restricted areas, and individual jet route descriptions are not included in the basic Parts 71, 73, and 75 respectively because of their longth and complexity. Such changes are published in the FEDERAL REGISTER and are included on appropriate aeronautical charts.
\*Due to the complexity. length, and frequency of issuance, en route IFR altitudes and instrument approach procedures are published in the FEDERAL REGISTER, the Airman's Information Manual, and are depicted on the aeronautical charts. Therefore, they are not included in the basic Parts 95 and 97.

MARY E. HEALY, Manager, Headquarters Operations.

[F.R. Doc. 69-15153; Filed, Dec. 18, 1969; 8:49 a.m.]

## DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION Washington, D.C. 20590

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