Federal Aviation Agency
Washington, D.C.

Civil Aeronautics Manual 41

Certification and Operation Rules for Scheduled Air Carrier Operations Outside the Continental Limits of the United States

Supplement No. 6, CAM 41 dated Nov. 10, 1959 **March 1, 1962**

SUBJECT: Revisions to CAM 41.

This supplement is issued to incorporate into CAM 41 Civil Air Regulations Amendments 41–40, 41–41, 41–42, 41–43, and 41–44, and Special Civil Air Regulations Nos. SR–392C, SR–432A, and SR–436B.

Amendments 41–40, 41–41, and 41–42 concern the carriage of cargo in passenger compartments. Amendment 41–40 was issued November 27, 1961, to become effective January 2, 1962. Amendment 41–41 postponed the effective date of Amendment 41–40, to January 20, 1962. Amendment 41–42 rescinded Amendment 41–40 and contained revised requirements concerning the carriage of cargo in passenger compartments.

Amendment 41 43 concerns mechanical reliability reports. It was issued February 6, 1962, to become effective March 12, 1962.

Amendment 41–44 concerns the illumination of passenger emergency exit markings. It was issued February 12, 1962, to become effective March 20, 1962.

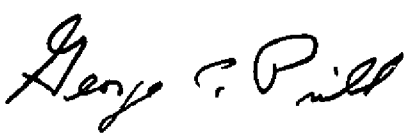
Special regulation SR–392C concerns the facilitation of experiments with exterior lighting systems. This regulation was issued January 30, 1962, to become effective February 3, 1962, and supersedes Special Civil Air Regulation No. SR–392B.

Special regulation SR–432A concerns the carriage of persons aboard all-cargo aircraft. This regulation was issued February 5, 1962, to become effective February 9, 1962, and supersedes Special Civil Air Regulations Nos. SR–419 and SR–432.

Special regulation SR–436B concerns airborne weather radar equipment requirements for airplanes carrying passengers. This regulation was issued December 28, 1961, to become effective January 5, 1962, and supersedes Special Civil Air Regulation No. SR–436A.

New or revised material is enclosed in black brackets on the pages submitted with this supplement, except Special Civil Air Regulations Nos. SR–392C, SR–432A, and SR–436B and the pages in the addendum containing the preambles of amendments.

Remove the following pages:	*Insert the following new pages:*
VII and VIII	VII and VIII
19 and 20	19 and 20
63 through 66–1	63 through 66–2
79 and 80	79 and 80
165 through 171	165 through 171
	P–43 through P–47



GEORGE C. PRILL, *Director,*
Flight Standards Service.

Attachments.

Flight Preparation and Takeoff Rules

Flight Course and En Route Rules

Instrument Approach and Landing Rules

Miscellaneous Operations Rules

Definitions

Appendixes

Addendum

Instruments and Equipment

41.23 *Emergency and safety equipment.* After May 31, 1957, the equipment required in sections 41.23b, 41.23c, and 41.23d shall be approved by the Administrator.

41.23-1 *First-aid kits (FAA policies which apply to sec. 41.23).* Each first-aid kit should be dust and moistureproof, should contain only materials which meet Federal Specifications GGK 391, as revised, and should include at least the following items or their equivalent:

(a) *No. 1 kit for aircraft of 1-5 persons capacity.*

Adhesive bandage compress, 1″ (16 per unit)	1
Antiseptic swabs, 10 mm. (10 per unit)	1
Ammonia inhalants, 6 mm. (10 per unit)	1
Ammonia, aromatic spirits, 2 cc. with drinking cups (4 each per unit)	1
2″ bandage compress (4 per unit)	1
4″ bandage compress (1 per unit)	1
Triangular bandage compressed, 40″ (1 per unit)	1
Burn compound, ⅛ oz. (6 per unit)	1
Tourniquet, forceps, and scissors (1 each per double unit container)	1

(b) *No. 2 kit for aircraft of 6-25 persons capacity.*[5]

Adhesive bandage compresses, 1″ (16 per unit)	2
Antiseptic swabs, 10 mm. (10 per unit)	2
Ammonia inhalants, 6 mm. (10 per unit)	1
Ammonia, aromatic spirits, 2 cc. with drinking cups (4 each per unit)	2
2″ bandage compresses (4 per unit)	2
4″ bandage compresses (1 per unit)	2
Triangular bandage compressed, 40″ (1 per unit)	1
Burn compound, ⅛ oz. (6 per unit)	1
Tourniquet, forceps, and scissors (1 each per double unit container)	1
Eye dressing packet (3 each per unit) (ophthalmic ointment, ⅛ oz.; eye pads; eye strips)	1

(c) *No. 3 kit for aircraft of more than 25-persons capacity.*

Adhesive bandage compresses, 1″ (16 per unit)	4
Antiseptic swabs, 10 mm. (10 per unit)	2
Ammonia inhalants, 6 mm. (10 per unit)	2
Ammonia, aromatic spirits, 2 cc. with drinking cups (4 each per unit)	2
2″ bandage compresses (4 per unit)	3
4″ bandage compresses (1 per unit)	3
Triangular bandage compressed, 40″ (1 per unit)	3
Burn compound, ⅛ oz. (6 per unit)	2
Tourniquet, forceps, scissors (1 each per double unit container)	1
Eye dressing packet (3 each per unit) (ophthalmic ointment, ⅛ oz.; eye pads; eye strips)	1

(Published in 17 F. R. 2748, March 29, 1952; amended in 18 F. R. 1433, March 13, 1953, effective March 15, 1953.)

41.23a *Safety belts.* Aircraft shall have installed a safety belt for each occupant. Safety belts shall be of an approved type. In no case shall the rated strength of a safety belt be less than that corresponding with the ultimate load factors specified in the pertinent currently effective aircraft airworthiness parts of this subchapter, taking due account of the dimensional characteristics of the safety belt installation for the specific seat or berth arrangement. The webbing of safety belts shall be subject to periodic replacement as prescribed by the Administrator.

41.23b *First-aid kits and emergency equipment.* Each airplane shall be equipped with a conveniently accessible first-aid kit adequate for the type of operation involved. Airplanes scheduled over routes requiring flights for long distances over uninhabited terrain must carry such additional emergency equipment as appropriate for the particular operation involved.

41.23c *Equipment for overwater operations.*

(a) The following equipment shall be required for all extended overwater operations: *Provided,* That the Administrator, after appropriate investigation, may require the carriage of all of the prescribed equipment, or any item thereof, for any operation over water, or upon application of an air carrier, permit deviation from these requirements for a particular extended overwater operation:

[5] Kit No. 2 in canvas may also be used for liferafts.

(1) Life vest or other adequate individual flotation device for each occupant of the airplane;

(2) Life rafts sufficient in number and of such rated capacity and buoyancy as to accommodate all occupants of the airplane;

(3) Suitable pyrotechnic signaling devices; and

(4) One portable emergency radio signaling device, capable of transmission on the appropriate emergency frequency or frequencies, which is not dependent upon the airplane power supply and which is self-buoyant and water-resistant.

(b) All required life rafts, life vests, and signaling devices shall be easily accessible in the event of a ditching without appreciable time for preparatory procedures. After May 31, 1957, this equipment shall be installed in conspicuously marked locations approved by the Administrator.

(c) A survival kit, appropriately equipped for the route to be flown, shall be attached to each required life raft.

41.23d *Emergency evacuation equipment.*

(a) *Means for emergency evacuation.* After August 31, 1957, on all passenger-carrying airplanes, at all emergency exits which are more than 6 feet from the ground with the airplane on the ground and with the landing gear extended, means shall be provided to assist the occupants in descending from the airplane. At floor level exits approved as emergency exits, such means shall be a chute or equivalent device suitable for the rapid evacuation of passengers. During flight time this means shall be in a position for ready use: *Provided*, That the requirements of this paragraph do not apply to emergency exits over the wing where the greatest distance from the lower sill of the exit to the wing surface does not exceed 36 inches.

(b) *Interior emergency exit markings.*

(1) After May 31, 1957, all passenger emergency exits, their means of access, and their means of opening shall be marked conspicuously. The identity and location of emergency exits shall be recognizable from a distance equal to the width of the cabin. The location of the emergency exit operating handle and the instructions for opening shall be marked on or adjacent to the emergency exit and shall be readable from a distance of 30 inches by a person with normal eyesight.

[(2) In all passenger-carrying airplanes, a source or sources of light with an energy supply independent of the main lighting system shall be installed to illuminate all passenger emergency exit markings. Such lights shall be designed to function automatically in a crash landing and to continue to function thereafter, and shall also be operable manually, or shall be designed only for manual operation and also to continue to function following a crash landing. When such lights require arming of the system to function automatically, the system shall be armed prior to each takeoff and landing. When such lights require manual operation to function, they shall be turned on prior to each takeoff and landing.]

[(Amendment 41-44, published in 27 F.R. 1453, Feb. 16, 1962, effective Mar. 20, 1962.)]

41.24 Supplemental oxygen; reciprocating-engine-powered airplanes. Except where supplemental oxygen is provided in accordance with the requirements of section 41.24a, supplemental oxygen shall be furnished and used as set forth below. The amount of supplemental oxygen required for a particular operation to comply with the rules in this part shall be determined on the basis of flight altitudes and flight duration consistent with the operating procedures established for such operation and route. As used in the oxygen requirements hereinafter set forth, "altitude" shall mean the pressure altitude corresponding with the pressure in the cabin of the airplane, and "flight altitude" shall mean the altitude above sea level at which the airplane is operated.

(a) *Crew members.* (1) At altitudes above 10,000 feet to and including 12,000 feet oxygen shall be provided for, and used by, each member of the flight crew on flight deck duty, and provided for all other crew members, during the portion of the flight in excess of 30 minutes within this range of altitudes.

(2) At altitudes above 12,000 feet oxygen shall be provided for, and used by, each

during the flights can be compiled by the field office and submitted, with recommendations regarding approval, to appropriate supervisory personnel of the Civil Aeronautics Administration.

(Published 18 F. R. 6753, October 24, 1953, effective December 1, 1953.)

41.129 *Aircraft proving tests.*

(a) A new type of air carrier aircraft shall have at least 100 hours of proving tests under the supervision of an authorized representative of the Administrator before authority for carrying passengers is issued. At least 50 hours of such tests shall be flown over authorized routes and shall include at least 10 hours of night operation.

(b) In a case of major changes on aircraft previously proved, or the use of the same aircraft on a substantially different operation, 50 hours of tests similar to those outlined in paragraph (a) of this section shall be required, of which at least 25 hours shall be flown over authorized routes, unless deviations are specifically authorized by the Administrator on the ground that the special circumstances of a particular case make a literal observance of the requirements of this paragraph unnecessary for safety.

(c) During the tests specified in paragraphs (a) and (b) of this section no person shall be carried other than those essential to the tests. Mail, express, and cargo may be carried at the discretion of the Administrator.

41.129–1 *Aircraft proving tests (FAA rules which apply to sec. 41.129).*

(a) *Purpose.* The purpose of aircraft proving tests is to determine the air carrier's ability to conduct the proposed operation in compliance with applicable provisions of the regulations in this subchapter and in accordance with the minimum safety requirements of the Federal Aviation Agency.

(b) *Application.* At least 30 days prior to the scheduling of aircraft proving tests, officials of the air carrier shall submit to the Federal Aviation Agency office handling its operations specifications, a written request for the assignment of Federal Aviation Agency personnel to observe the tests. The request must be accompanied by an original application and copies of pertinent proposed amendments to the operations specifications, and must include sufficient data pertaining to the aircraft to satisfy the Administrator that the air carrier is prepared for the aircraft proving tests. This will allow sufficient time for making any necessary additions or corrections, thus preventing delays or misunderstandings.

(c) *Conduct.* After the air carrier has made all the necessary preparations to conduct the aircraft proving tests, duly designated representatives of the Federal Aviation Agency will be assigned to observe them. Such portions of the aircraft proving tests as may be conducted under conditions of scheduled operation, shall be undertaken exactly as the operator intends to operate in scheduled air transportation when carrying passengers, property, or mail, or any combination thereof. Air carrier personnel assigned to conduct the aircraft proving tests shall be regular crew members who, it is anticipated, will be assigned to the aircraft.

(d) *Conclusion.* On completion of the aircraft proving tests, a reasonable period of time will be required in order that the information gained during the tests can be compiled by the field office and submitted, with recommendations regarding approval, to appropriate supervisory personnel of the Federal Aviation Agency.

(Published in 18 F. R. 6753, October 24, 1953, effective December 1, 1953.)

[41.30 *Mechanical reliability reports.*

[(a) Each air carrier shall report the occurrence or detection of those failures, malfunctions, or defects specified in paragraph (b) of this section. In addition, each air carrier shall report any other failure, malfunction, or defect which occurs or is detected at any time in an airplane or airplane component (including airplane systems, appliances, powerplants, and propellers) used by the air carrier, when, in the carrier's opinion, such failure, malfunction, or defect has endangered or may endanger the safe operation of an airplane used by the air carrier. The report shall be in written form covering

a period of 24 hours beginning at 0900 hours local time of each day and ending at 0900 hours local time the next day, and shall be submitted to the Federal Aviation Agency maintenance inspector assigned to the air carrier by 0900 hours local time of the following day: *Provided*, That reports which are due on Saturday or Sunday may be submitted on the following Monday and in case of legal holidays on the following workday.

[NOTE: Failures, malfunctions, or defects reported in accordance with the accident reporting provisions of Part 320 of the Regulations of the Civil Aeronautics Board need not be included.

[(b) The air carrier shall report each occurrence or detection of a failure, malfunction, or defect involving:

[(1) Fires during flight and whether the related fire-warning system functioned properly;

[(2) Fires during flight and whether the related fire-warning system did not function properly;

[(3) Fires during flight not protected by a related fire-warning system;

[(4) False fire warning during flight;

[(5) Engine exhaust systems which result during flight in damage to engine, adjacent structure, equipment, or components;

[(6) An airplane component which results during flight in the accumulation or circulation of smoke, vapor, or toxic or noxious fumes in the crew compartment or cabin;

[(7) Engine shutdown during flight due to engine flameout;

[(8) Engine shutdown during flight when external damage to the engine or to the airplane structure has occurred;

[(9) Engine shutdown during flight due to foreign object ingestion or icing;

[(10) Engine shutdown during flight of more than one engine on an airplane;

[(11) Propeller feathering system or ability of the system to control overspeeding during flight;

[(12) Fuel or fuel-dumping systems affecting fuel flow or causing hazardous leakage during flight;

[(13) Landing gear extension or retraction or opening or closing of landing-gear doors during flight;

[(14) Brake system components which result in loss of brake actuating force while the airplane is in motion on the ground;

[(15) Airplane structure which requires major repair;

[(16) Cracks, permanent deformation, or corrosion of airplane structure which exceed the maximum limits acceptable to the manufacturer or the Federal Aviation Agency; and

[(17) Airplane components or systems which result during flight in the taking of emergency actions; except that action taken to shutdown an engine need not be reported as an emergency under this provision.

[NOTE: Under the provisions of this paragraph, an airplane is in flight from the moment it leaves the surface of the earth on takeoff until it touches down at a place of landing.

[(c) Reports required by paragraph (a) of this section shall be transmitted in a manner and on a form convenient to the air carrier's system of communication and procedure, and shall include in the first daily report as much of the following information as is available:

[(1) Type and identification number of the airplane, name of the operator, date, flight number, and stage during which the incident occurred; e.g., preflight, takeoff, climb, cruise, descent, landing, inspection;

[(2) Emergency procedure effected; e.g., unscheduled landing, emergency descent;

[(3) Nature of condition; e.g., fire, structural failure;

[(4) Identification of part and system involved, including available information pertaining to type designation of the major component and time since overhaul;

[(5) Apparent cause of trouble; e.g., wear, crack, design deficiency, personnel error;

[(6) Disposition; e.g., repaired, replaced, airplane grounded, part sent to manufacturer; and

[(7) Brief narrative summary of other pertinent information necessary for more complete identification, determination of seriousness, and corrective action.

[(d) Reports required by paragraph (a) shall not be withheld pending accumulation of all information specified in paragraphs (b) and (c) of this section. When additional information is obtained relative to the incident, including any that may be furnished by the manufacturer or other outside agency, it shall be expeditiously submitted as a supplement to the first report, referencing the date and place of submission of such report.

[NOTE: The reporting requirements contained herein have been approved by the Bureau of the Budget in accordance with the Federal Reports Act of 1942.

[(Amendment 41-43, published in 27 F.R. 1244, Feb. 10, 1962, effective Mar. 12, 1962.)]

[*41.130a Mechanical interruption summary report.* Each air carrier shall submit regularly and promptly to the Administrator a summary report containing information on the following occurrences:

[(a) All interruptions to a scheduled flight, unscheduled changes of airplanes en route, and unscheduled stops and diversions from route which result from known or suspected mechanical difficulties or malfunctions that are not required to be included in mechanical reliability reports.

[(b) The number of engines removed prematurely because of mechanical trouble, listed by make and model of engine and the airplane type in which the engine was installed.

[(c) The number of propeller featherings in flight, listed by type of propeller and type of engine and the airplane on which the propeller is installed. Propeller featherings accomplished for training, demonstration, or flight check purposes need not be reported.

[NOTE: The reporting requirements contained herein have been approved by the Bureau of the Budget in accordance with the Federal Reports Act of 1942.

[(Amendment 41-43, published in 27 F.R. 1244, Feb. 10, 1962, effective Mar. 12, 1962.)]

41.131 *Irregularity report.* All airmen, including flight and ground personnel, shall immediately report to the operations manager any irregularity or hazard which in their opinion makes for unsafe operation. If such report is found to be justified, notice of the irregularity or hazard must be submitted to the Administrator at once.

41.132 *Communication priority.* Where a communications channel serves point-to-point contacts in addition to ground-to-plane, priority shall be given to plane-to-ground and ground-to-plane communications.

41.133 *Communication records.* Each air carrier shall maintain, and retain for a period of 30 days, records of radio contacts by or with pilots en route.

41.134 *Flight crew members at controls.* All required flight crew members when on flight deck duty shall remain at their respective stations while the airplane is taking off or landing, and while en route except when the absence of one such flight crew member is necessary for the performance of his duties in connection with the operation of the airplane. All flight crew members shall keep their seat belts fastened when at their respective stations.

41.135 *Drinking and serving of alcoholic beverages.*

(a) No person shall drink any alcoholic beverage aboard an air carrier aircraft unless such beverage has been served to him by the air carrier operating the aircraft.

(b) No air carrier shall serve any alcoholic beverage to any person aboard an air carrier aircraft if such person appears to be intoxicated.

(c) No air carrier shall permit any person to board an air carrier aircraft if such person appears to be intoxicated.

(d) An air carrier shall report to the Administrator within 5 days any incident in which a person aboard its aircraft refuses to comply with paragraph (a) of this section, or any disturbance caused by a person who appears to be intoxicated while aboard its aircraft.

(Amendment 41-31, published in 25 F.R. 169, Jan. 6, 1960, effective Mar. 10, 1960; Amendment 41-39, published in 26 F.R. 9907, Oct. 21, 1961, effective Nov. 21, 1961.)

[*41.136 Carriage of cargo in passenger compartments.* Cargo shall not be carried in the passenger compartment of an airplane except as provided in either paragraph (a) or (b) of this section.

[(a) Cargo carried aft of the foremost seated passengers shall be carried in an approved cargo bin. Approved cargo bins shall meet the requirements of subparagraphs (1) through (8) of this paragraph.

[(1) The bin shall be capable of withstanding the load factors and emergency landing conditions applicable to the passenger seats of the airplane in which the bin is installed multiplied by a factor of 1.15. The combined weight of the bin and the maximum weight of cargo which may be carried in the bin shall be used to determine this strength.

[(2) The maximum weight of cargo which the bin is approved to carry and any instructions necessary to insure proper weight distribution within the bin shall be conspicuously marked on the bin.

[(3) The bin shall not impose any load on the floor or other structure of the airplane which exceeds the structural load limitations of such components.

[(4) The bin shall be attached to the seat tracks or to the floor structure of the airplane, and its attachments shall withstand the load factors and emergency landing conditions applicable to the passenger seats of the airplane in which the bin is installed multiplied by either the factor 1.15 or the seat attachment factor specified for the airplane, whichever is greater. The combined weight of the bin and the maximum weight of cargo which may be carried in the bin shall be used to determine this strength.

[(5) The bin shall not be installed in a position which restricts access to or use of any required emergency exit, or the use of the aisle in the passenger compartment.

[(6) The bin shall be fully enclosed and constructed of material which is at least flame resistant.

[(7) Suitable safeguards shall be provided within the bin to prevent the cargo from shifting under emergency landing conditions.

[(8) The bin shall not be installed in a position which obscures any passenger's view of the "seat belt" or "no smoking" sign, nor shall any required exit sign be blocked from view, unless an auxiliary sign or other approved means for proper notification of such passenger is provided.

[(b) Cargo carried forward of the foremost seated passengers shall be carried either in approved cargo bins as specified in paragraph (a) of this section, or in accordance with the following requirements:

[(1) It shall be properly secured by means of safety belts or other tiedowns having sufficient strength to eliminate the possibility of shifting under all normally anticipated flight and ground condtions;

[(2) It shall be packaged or covered in a manner to avoid possible injury to passengers;

[(3) It shall not impose any load on seats or the floor structure which exceeds the structural load limitation for those components;

[(4) It shall not be located in a position which restricts the access to or use of any required emergency or regular exit, or the use of the aisle in the passenger compartment; and

[(5) It shall not be located in a position which obscures any passenger's view of the "seat belt" or "no smoking" sign, nor shall any required exit sign be blocked from view, unless an auxiliary sign or other approved means for proper notification of such passenger is provided.

[(Amendment 41-40, published in 26 F.R. 11355, Dec. 1, 1961, effective Jan. 2, 1962; Amendment 41-41, published in 26 F.R. 12762, Dec. 30, 1961, effective Jan. 2, 1962; Amendment 41-42, published in 27 F.R. 650, Jan. 23, 1962, rescinded Amendment 41-40.)]

Definitions

41.137 *Definitions.* As used in this part, terms shall be defined as follows:

Alternate airport. An alternate airport is one listed in the clearance as a point to which a flight may be directed if, subsequent to departure, a landing at the point to which the flight is cleared becomes undesirable.

Broken clouds. The term "broken clouds" means a condition where more than 50 but less than 90 percent of the sky is covered by clouds.

Category. Category shall indicate a classification of aircraft such as airplane, helicopter, glider, etc.

Ceiling. The term "ceiling" means the height of the base of the lowest cloud layer reported as "broken clouds" or "overcast."

Check pilot. A check pilot is a pilot authorized by the Administrator to check pilots of the air carrier for familiarity with route procedures and for piloting technique.

Class. Class shall indicate a difference in basic design of aircraft within a category, such as single-engine land, multiengine sea, etc.

Contact operation. A contact operation is an operation conducted under contact flight rules as prescribed in Part 60 of this subchapter.

Crew member. Crew member means any individual assigned by an air carrier for the performance of duty on the aircraft other than as flight crew member during flight time.

Extended overwater operation. An extended overwater operation shall be considered an operation over water conducted at a distance in excess of 50 miles from the nearest shoreline.

Flight crew member. Flight crew member means a pilot, flight radio operator, flight engineer, or flight navigator assigned to duty on the aircraft during flight time.

Flight time. Flight time shall mean the total time from the moment the aircraft first moves under its own power for the purpose of flight until the moment it comes to rest at the end of the flight (block to block).

Instrument operation. An instrument operation is an operation conducted under instrument flight rules as prescribed in Part 60 of this subchapter.

Long distance operation. A long distance operation is one in which the time interval between stops is of sufficient duration to require that the dispatch be based entirely on forecasts of weather expected at the intended destination and alternates.

Pilot compartment. The term "pilot compartment" means that part of the aircraft designed for the use of the flight crew.

Pilot in command. Pilot in command shall mean the pilot responsible for the operation and safety of the aircraft during the time defined as flight time.

Point-of-no-return. The term "point-of-no-return" means that point at which the aircraft no longer has sufficient fuel, under existing conditions, to return to the point of departure or any alternate for that point.

Provisional airport. A provisional airport is an airport approved for the purpose of providing adequate service to a community when the regular airport serving that community is not available.

Refueling and holding airport. A refueling and holding airport is an airport approved as a point to which flights may be cleared for refueling.

Regular airport. A regular airport is an airport used as a regular stop on a route.

Route. A route is a path through the navigable airspace identified by an area on the surface of the earth, the boundaries of which are designated or approved by the Administrator.

Route segment. A route segment is a portion of a route, the boundaries of which are identified by:

(1) A continental or insular geographic location;

(2) A point at which some specialized aid to air navigation is located; or

(3) A point at which a definite radio fix is located.

Second in command. Second in command shall mean a pilot other than the pilot in

command who is designated by the air carrier to act as second in command of an aircraft.

Short distance operation. **A short distance operation is one which involves intermediate stops of sufficient frequency to permit the dispatch from each such stop to be based on spot weather reports or a combination of spot weather reports and forecasts.**

Type. **Type shall mean all aircraft of the same basic design including all modifications thereto except those modifications which result in a change in handling or flight characteristics.**

41.137–1 *Definitions; route segment (FAA interpretations which apply to sec. 41.137(q)).* The term "continental or insular geographic location" is a means for identifying a route segment where navigation can be accomplished by visual reference for the conduct of (a) day VFR operations, and (b) night VFR operations provided the geographic landmarks afford adequate visual reference during the hours of darkness.

The terms "a point at which some specialized aid to air navigation is located" and "a point at which a definite radio fix is located" are means for identifying a route segment where adequate navigational aids are available for day or night IFR operations.

(Published in 15 F. R. 9232, December 23, 1950, effective upon publication in the Federal Register.)

SPECIAL CIVIL AIR REGULATION NO. SR-392C

Effective: February 3, 1962
Adopted: January 30, 1962
Published: February 3, 1962
(27 F.R. 1008)

Facilitation of Experiments With Exterior Lighting Systems

Special Civil Air Regulation No. SR-392B, adopted on February 25, 1957, permits experimentation with exterior lighting systems, which do not comply with the standards prescribed in the Civil Air Regulations, on aircraft with standard airworthiness certificates. Several conditions are imposed to insure that the number of aircraft engaged in the experiments is reasonably limited; that the experimental exterior lights are in fact installed for bona fide experimentation; and that the results of such experimentation become generally available. This special regulation expires on February 25, 1962.

In a notice of proposed rule making contained in Draft Release No. 61-27 and published in the Federal Register, December 23, 1961 (26 F.R. 12294), the Agency gave notice that it has under consideration the termination of SR-392B and requested comments from interested persons concerning this matter. In response to such request, the Agency has received numerous reports, arguments and other evidence. However, the volume of the comments received is such that there is not sufficient time remaining to review and evaluate such comments prior to the termination of SR-392B. Therefore, in order to afford the Agency the opportunity to fully consider all the relevant matter presented and to take whatever additional rule making action that may be indicated, it is necessary to extend the termination date of SR-392B to June 25, 1962.

Since this regulation continues in effect the provisions of the previous regulation and imposes no additional burden upon any person, compliance with the notice and public procedure provisions of the Administrative Procedure Act is unnecessary and good cause exists for making this regulation effective on less than 30 days' notice.

In consideration of the foregoing, the following Special Civil Air Regulation is adopted to become effective on February 3, 1962:

Contrary provisions of the Civil Air Regulations notwithstanding, experimental exterior lighting equipment which does not comply with the relevant specifications contained in the Civil Air Regulations may, subject to the approval of the Administrator, be installed and used on aircraft for the purpose of experimentation intended to improve exterior lighting for a period not to exceed 6 months: *Provided,* That

(1) The Administrator may grant approval for additional periods if he finds that the experiments can be reasonably expected to contribute to improvements in exterior lighting;

(2) Not more than 15 aircraft possessing a U.S. certificate of airworthiness may have installed at any one time experimental exterior lighting equipment of one basic type;

(3) The Administrator shall prescribe such conditions and limitations as may be necessary to insure safety and avoid confusion in air navigation;

(4) The person engaged in the operation of the aircraft shall disclose publicly the deviations of the exterior lighting from the relevant specifications contained in the Civil Air Regulations at times and in a manner prescribed by the Administrator; and

(5) Upon application for approval to conduct experimentation with exterior lighting, the applicant shall advise the Administrator of the specific purpose of the experiments to be conducted; and, at the conclusion of the approved period of experimentation, he shall advise the Administrator of the detailed results thereof.

This regulation supersedes Special Civil Air Regulation No. SR–392B and shall terminate June 25, 1962, unless sooner superseded or rescinded.

SPECIAL CIVIL AIR REGULATION NO. SR–432A

Effective: February 9, 1962
Adopted: February 5, 1962
Published: February 9, 1962
(27 F.R. 1208)

Carriage of Persons Aboard All-Cargo Aircraft

Authorization for the carriage of persons aboard all-cargo aircraft is presently contained in Special Civil Air Regulations No. SR–419, effective January 17, 1957 (22 F.R. 423), and No. SR–432, effective May 30, 1959 (24 F.R. 4366).

SR–419 authorizes three LOGAIR contractors, listed in Appendix A thereto, to carry military couriers, route supervisors, and LOGAIR flight crewmembers of other LOGAIR contractors in their cargo aircraft. These air carriers were granted relief from the maximum passenger weight requirements of Special Civil Air Regulation No. SR–406C, as applicable to C–46 aircraft, in addition to certain other passenger-carrying provisions of Part 42 of the Civil Air Regulations. Special Civil Air Regulation No. SR–419 also provides that other air carriers conducting LOGAIR operations may individually secure this authorization from the Administrator, and be listed accordingly in Appendix A of the regulation. Such authorization was granted in the interest of the efficiency and safety of these essential national defense operations.

SR–432 authorizes the carriage of certain persons in cargo operations when such persons perform specific duties in connection with the safety of flights, the safe carriage of animals, or the carriage of radioactive materials. It also provides for the carriage of security and honor guards in cargo aircraft when authorized by the Federal Government. These authorizations were based on the conclusion that compliance with the passenger operation rules of Parts 40, 41, and 42 by an air carrier when carrying these passengers in all-cargo airplanes placed an unreasonable burden upon the air carriers concerned, since such individuals should not, and were not intended to, fall within the normally accepted category of air carrier passengers.

This regulation incorporates the provisions of both Special Regulations in a single regulation with the following changes:

(1) Recently the Agency has received requests from other air carriers and commercial operators operating flights under LOGAIR or other types of military contracts who wish to take advantage of SR–419. However, as presently written, it would require a revision of the regulation or an exemption thereto each time an operator is given such authorization. The Administrator has determined that there are no special reasons to limit such authorization to LOGAIR operations or air carriers and that

this privilege should be extended to all military contract air carriers or commercial operators.

(2) Requests have also been received from air carriers to permit carriage of company employees and their dependents on cargo flights without complying with the passenger-carrying airplane requirements when traveling on company business to and from outlying stations not served by adequate and regular passenger flights. The problem of providing these persons with transportation to and from their duty stations is particularly acute outside the United States. Carriage of these persons on cargo flights is similar to the carriage of the persons authorized by paragraphs 1 (a) and (b) of SR–432 and a provision is included authorizing their transportation on cargo flights without full compliance with the passenger-carrying or passenger-service airplane requirements of Part 40, 41, or 42.

(3) Many of the operators may also wish to conduct the cargo flights in accordance with SR–411A which authorizes airplanes certificated under the transport category requirements in effect prior to March 13, 1956, to be operated in cargo service at certain increased weights. Airplanes used in these cargo flights are subject to inspections in addition to those normally performed and have been operated incident-free for many years. Therefore, as part of this regulatory action the persons authorized herein may also be carried aboard those airplanes specified in SR–411A at the increased weights.

(4) Under SR–419, the operator is responsible for the issuance of instructions to insure that the persons carried will not interfere with the control of the aircraft. This requirement is unnecessary and is being deleted in this regulation. The pilot in command of the aircraft has the authority to approve or deny access to the flight deck of such aircraft and is better qualified to issue such instructions as are necessary under the particular circumstances of the flight to persons authorized to enter the flight deck under this regulation.

(5) SR–419 also requires that the operator furnish the Administrator, prior to the carriage of persons authorized by the regulation, with a list showing the type of aircraft, registration number, and an authorization from the Air Force for the transportation of such persons. Experience has shown that inspection of the records of the operators involved will supply the necessary information. Therefore, submission of this information in advance is no longer required under this regulation.

In view of the foregoing, this regulation combines the provisions of SR–419 and SR–432, insofar as they both relate to the carriage of passengers on cargo aircraft, and, in addition, permits the carriage of certain other persons on such cargo flights. The regulation also permits such flights to be conducted without compliance with the passenger-carrying or passenger-service airplane requirements of Part 40, 41, or 42, or, in the case of C–46 airplanes, the provisions of SR–406C. When such persons are authorized to be carried on airplanes certificated under the transport category requirements in effect prior to March 13, 1956, the airplane may be operated in accordance with the increased weight requirements of SR–411A.

With regard to the carriage of company employees and their dependents it was deemed necessary to provide special requirements, since

these persons may vary in age and agility, and thus their ability to cope with unusual situations may be restricted. Therefore, it is being required that operators include in their operations manuals the procedures necessary for the safe carriage of such persons.

Since this regulatory action imposes no additional burden on any person, notice and public procedure hereon are unnecessary, and good cause exists for making it effective on less than 30 days' notice.

In consideration of the foregoing, the following Special Civil Air Regulation is hereby adopted, effective February 9, 1962:

1. The following persons, when duly authorized by the air carrier or commercial operator operating the airplane may be carried aboard an airplane engaged in the carriage of cargo only, without compliance with the passenger-carrying or passenger-service airplane requirements of Parts 40, 41, and 42, and SR–406C and SR–411A of the Civil Air Regulations:

(a) A person performing a specific duty assignment aboard an airplane in connection with the safety of the flight, or the safe carriage of animals, or radioactive materials within the meaning of and subject to the requirements of section 49.2 of the Civil Air Regulations; or while traveling to or from such duty assignments where the air carrier or commercial operator finds that other means of transportation are not practicable;

(b) A person performing duty as a security or honor guard aboard an airplane for shipments made by or under the authority of the Federal Government;

(c) Military couriers, military route supervisors, and flight crewmembers of any military cargo contract air carrier or commercial operator, when operating under a military cargo contract and specifically authorized by the appropriate military service; and

(d) Company employees of the air carrier or commercial operator and their dependents when traveling on company business to or from outlying stations not served by adequate, regular passenger flights. When such persons are carried, cargo will be loaded in such a manner as not to obstruct access to the pilot compartment, or the appropriate emergency or regular exits. In addition, for extended overwater flights, or for flights over uninhabited terrain, emergency and survival equipment adequate for the particular operation involved shall be carried. Procedures for the safe carriage of company employees and their dependents under this subparagraph shall be incorporated into the air carrier's or commercial operator's operations manual.

2. An approved seat with a safety belt shall be available for the use of each person described in paragraph 1. The location of the seat shall be such that the occupant will not be in a position to interfere with the flight crewmembers in the performance of their duties.

3. Persons described in paragraph 1 may be admitted to the flight deck of the airplane when authorized by the pilot in command.

This Special Civil Air Regulation supersedes Special Civil Air Regulation No. SR–419 and Special Civil Air Regulation No. SR–432, and shall remain in effect until superseded or rescinded.

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SPECIAL CIVIL AIR REGULATION NO. SR–436B

Effective: January 5, 1962
Adopted: December 28, 1961
Published: January 5, 1962
(27 F.R. 97)

Airborne Weather Radar Equipment Requirements for Airplanes Carrying Passengers

Special Civil Air Regulation No. SR–436A (25 F.R. 6130), which superseded SR–436 (25 F.R. 167), requires the installation of approved airborne weather radar equipment in certain transport category airplanes used for the carriage of passengers under Part 40, 41, or 42 of the Civil Air Regulations. This requirement is based on the fact that airborne weather radar equipment facilitates the early detection and location by the pilot of certain areas of turbulence and enables him to avoid such areas or to take such other action as may be necessary in the interest of safety.

Section 4 of SR–436A expressly excepts from the provisions of the regulation airplanes used solely within the States of Alaska and Hawaii. These operations were excluded because thunderstorms and other potentially hazardous meteorological conditions detectable by weather radar rarely occur in those areas.

Recently, the Federal Aviation Agency received a request from an air carrier operating in the State of Alaska to amend section 4 of SR–436A to expand the exceptions contained in that section to include certain areas of the Dominion of Canada. In support of its request the air carrier points out that because of the physical shape of the State of Alaska, the use of airways which overfly northwest Canada provide a more direct route between northeast Alaska and southeast Alaska. Moreover, when operating over the Canadian Airways Dawson and Whitehorse, Yukon Territory, Canada, are ideally located and suitably equipped to provide refueling service. However, when carrying passengers under the provisions of Part 41 or 42, compliance with the present provisions of SR–436A prevents the use of both the more direct airways over Canada and the Canadian refueling stops unless approved airborne weather radar is installed on the airplane being utilized.

At an industry meeting held in the State of Alaska, subsequent to this request, the feasibility of amending SR–436A was discussed. It was suggested at this meeting that if an amendment is made to section 4 of SR–436A it should include all of the Dominion of Canada west of a north-south line which would encompass the city of Edmonton, Alberta, Canada. This would include all of Canada west of longitude 110° W., between the northern coastline of Canada and the northern boundary of the continental United States. This request was based upon a contention that there is light thunderstorm activity in that part of Canada.

As a result of these requests, the Federal Aviation Agency initiated a study into the feasibility of amending section 4 of SR–436A to except airplanes operated in certain parts of Canada from the requirement of

installing airborne weather radar. Information was received from the U.S. Weather Bureau that the area of Canada west of longitude 130° W., between latitude 70° N. and latitude 53° N., has meteorological conditions similar to the State of Alaska. This information also shows that thunderstorms and other potentially hazardous meteorological conditions rarely occur in that area. However, in the area of Canada that is east and south of that area and adjacent to the United States northern boundary and which encompasses Edmonton, Alberta, the thunderstorm activity increases considerably and is equal to or greater than that of a large portion of the United States where airborne weather radar is mandatory.

After considering the foregoing, it has been determined that the level of safety in air carrier passenger operations would not be reduced by excluding from the provisions of SR–436A airplanes used for the carriage of passengers within Alaska and that portion of Canada west of longitude 130° W., between latitude 70° N. and latitude 53° N., where thunderstorms and other potentially hazardous weather conditions rarely occur. In addition, such an exclusion would permit the use of more direct routes and refueling stops between northeast and southeast Alaska. Therefore, section 4 of SR–436A is amended to exclude airplanes used within the State of Alaska and that portion of Canada west of longitude 130° W., between latitude 70° N. and latitude 53° N., from the weather radar requirements.

This Special Civil Air Regulation incorporates into one document all of the provisions of SR–436A with amendments to exclude the foregoing portions of Canada. Since it imposes no additional burden on any person and relieves a restriction, I find that notice and public procedure hereon are unnecessary, and that good cause exists for making this regulation effective on less than 30 days' notice.

In consideration of the foregoing, the following Special Civil Air Regulation is hereby adopted:

1. *Airborne weather radar equipment requirement.* After the dates specified, the following transport category airplanes shall not be used for the carriage of passengers under the provisions of Part 40, 41, or 42 of the Civil Air Regulations, unless approved airborne weather radar equipment is installed in such airplanes:

(a) July 1, 1960, for all turbine-powered airplanes certificated under the transport category rules;

(b) January 1, 1961, for the Douglas DC–7 Series, Douglas DC–6 Series, and Lockheed 1049 and 1649 Series type airplanes; and

(c) January 1, 1962, for all airplanes certificated under the transport category rules, except C–46 type airplanes.

NOTE: Airplanes subject to the provisions of paragraph (c) of this section include, but are not limited to, the following types: Boeing 377; Convair 240, 340, and 440; Lockheed 049 and 749; Martin 202 and 404; and Douglas DC–4.

2. *Schedule for installation of equipment.*

(a) Each operator conducting passenger operations under the provisions of Part 40, 41, or 42 of the Civil Air Regulations with transport category airplanes on which airborne weather radar is not installed, shall establish a schedule for the progressive completion of such radar installations, in accordance with the provisions of section 1 of this regulation. The schedule shall provide for the completion of all required radar

installations on or before the dates specified in section 1 of this regulation, and the completion of at least 40 percent of the required installations on or before the following dates:

(1) August 1, 1960, for airplanes of the types specified in section 1(b), and

(2) February 1, 1961, for airplanes of the types specified in section 1(c).

(b) On or before July 1, 1960, a copy of the schedule required by paragraph (a) of this section shall be submitted to an authorized representative of the Administrator, together with a list of any airplanes the operator intends to discontinue using in the carriage of passengers prior to the date on which radar equipment must be installed.

3. *Requirement for dispatch and continuance of flight.* After the effective date specified in section 6 of this regulation, all transport category airplanes having approved airborne weather radar installed shall be operated in accordance with the following rules when used in passenger operations under Part 40, 41, or 42:

(a) *Dispatch.* No airplane shall be dispatched (or flight of an airplane started under the provisions of Part 42) under IFR or night VFR conditions when current weather reports indicate thunderstorms, or other potentially hazardous weather conditions which can be detected by airborne weather radar, may reasonably be expected to be encountered along the route to be flown, unless approved airborne weather radar equipment installed in the airplane is in a satisfactory operating condition.

(b) *En route.* In the event the airborne weather radar becomes inoperative en route, the airplane shall be operated in accordance with the instructions and procedures specified in the operations manual for such occurrence. After the date specified by section 1 of this regulation for the mandatory installation of approved airborne weather radar on the type of airplane involved, such instructions and procedures shall meet with the approval of an authorized representative of the Administrator.

4. *Exceptions.* The provisions of this regulation shall not apply to airplanes used (a) solely within the State of Hawaii or within the State of Alaska and that portion of the Dominion of Canada west of longitude 130° W., between latitude 70° N. and latitude 53° N., or (b) during all-cargo, training, test, or ferry flights.

5. *Electrical power supply.* Contrary provisions of the Civil Air Regulations notwithstanding, an alternate electrical power supply need not be provided for airborne weather radar equipment.

6. *Effective date.* This Special Civil Air Regulation shall become effective on January 5, 1962, and supersedes Special Civil Air Regulation No. SR–436A.

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ADDENDUM

Amendment 41–40

Carriage of Cargo in Passenger Compartments

Adopted: Nov. 27, 1961
Effective: Jan. 2, 1962
Published: Dec. 1, 1961
(26 F.R. 11355)

Note: The effective date of this amendment was postponed to January 20, 1962, by Amendment 41–41, adopted December 28, 1961. On January 19, 1962, Amendment 41–40 was rescinded by Amendment 41–42. The preamble of Amendment 41–40 is being retained as it contains the basic background leading to the promulgation of rules concerning the carriage of cargo in passenger compartments.

The currently effective provisions of Part 41 of the Civil Air Regulations do not provide for the carriage of cargo in the passenger compartment of an air carrier aircraft. However, the operations specifications issued to the air carriers certificated to operate under this part do authorize such carriage, subject to certain restrictions. They provide in part that cargo shall not be carried aft of seated passengers. The intent of this restriction was to safeguard passengers from any possible injury which could be caused by the shifting forward of cargo in the event the aircraft was involved in a survivable crash involving high deceleration forces. The present authorization does not recognize that this desired safeguard could be accomplished equally well by the incorporation of suitable methods of cargo stowage designed to prevent the shifting of cargo in accidents of this nature.

As a result of a request from the air carrier industry to permit the carriage of cargo in the passenger compartment in cargo bins specifically designed for this purpose, the Federal Aviation Agency issued a notice of proposed rule making which was published in the Federal Register (24 F.R. 8302) and circulated as Civil Air Regulations Draft Release No. 59–15 dated October 6, 1959, and titled "Carriage of Cargo in Passenger Compartments." This notice proposed to amend Parts 40, 41, and 42 of the Civil Air Regulations to authorize the carriage of cargo in the passenger compartment without regard to its location with respect to seated passengers, provided:

(a) The cargo is carried in approved bins which meet the strength and other safety provisions applicable to cargo and passenger compartments prescribed in Part 4b or other airworthiness part under which the aircraft is type certificated, and

(b) The combined weight of the cargo and the approved bin or compartment does not exceed 85 percent of the load used in determining the design conditions for the structure (bin) involved.

It was also proposed in Draft Release 59–15 to continue the authorization to carry cargo forward of seated passengers in the passenger compartment under practically the same provisions as are currently in effect. However, one additional requirement was proposed to be incorporated into the current provision. This requirement was that cargo not carried in approved containers or compartments must be secured by tiedowns possessing sufficient strength to eliminate the possibility of shifting under emergency landing conditions.

The comments received in response to the draft release were for the most part favorable and they reflected endorsement of the principles of the proposal. However, definite opposition was expressed in the comments with regard to the requirement that tiedown for cargo not carried in approved bins or compartments shall possess sufficient strength to withstand the inertia forces of an emergency landing condition. It was contented that to modify the existing authorization by the addition of this requirement would prevent an operational practice which has been utilized for a number of years without adversely

affecting safety. Therefore, in view of these comments, and since it was not the intent of the proposal to materially change the existing authorization but only to provide additional means of safely carrying cargo in the passenger compartment, the final rule does not contain this requirement.

It will be noted that the final rule sets forth specific minimum requirements which a cargo bin must meet to be "approved" by a representative of the Administrator. Draft Release 59–15 contained notice of the Federal Aviation Agency's intention to require the use of "approved" cargo bins but did not specify the exact requirements for the "approval." The substance of the proposed rule on cargo bin specifications provided that the cargo bin would be required to meet the strength and other safety provisions of Part 4b or other appropriate part under which the aircraft is type certificated, and that the bin would be considered as an item of mass for inertia force computations. After further study of these provisions it has been determined that the incorporation into the rule of specific minimum requirements for cargo bins would provide guidance to the industry and eliminate the need for additional directives by the Federal Aviation Agency on this subject. Accordingly, the final rule specifies the minimum requirements which such cargo bins must meet.

Interested persons have been afforded an opportunity to participate in the making of this regulation (24 F.R. 8302), and due consideration has been given to all relevant matter presented.

Amendment added a new section 41.136.

Amendment 41–41

Carriage of Cargo in Passenger Compartments	Adopted:	Dec. 28, 1961
	Effective:	Jan. 2, 1962
	Published:	Dec. 30, 1961 (26 F.R. 12762)

On November 27, 1961, the Federal Aviation Agency issued Amendment 41–40 to Part 41 of the Civil Air Regulations, (26 F.R. 11355) to become effective on January 2, 1962.

Subsequent to the issuance of this amendment, certain air carriers requested reconsideration of those provisions of the amendment restricting the height of the cargo bins which may be approved for the carriage of cargo in the passenger compartments. A preliminary reevaluation of this request indicates that the height restriction may be relaxed or eliminated without adversely affecting safety. Accordingly, in order to provide sufficient time for the completion of this reevaluation and to make other required clarifying changes, the effective date of Amendment 41–40 is being postponed from January 2, 1962, until January 20, 1962.

In view of the foregoing, I find that notice and public procedure hereon are impracticable, and good cause exists for making this amendment effective on less than 30 days' notice.

Amendment postponed the effective date of Amendment 41–40 from January 2, 1962, until January 20, 1962.

Amendment 41–42

Carriage of Cargo in Passenger Compartments	Adopted:	Jan. 19, 1962
	Effective:	Jan. 20, 1962
	Published:	Jan. 23, 1962 (27 F.R. 650)

Section 41.136 of Part 41 was promulgated by Civil Air Regulations Amendment 41–40 (26 F.R. 11355) issued November 27, 1961, to become effective January 2, 1962. This section provides a means by which cargo may be safely carried in the passenger compartment of an air carrier airplane.

Subsequent to the issuance of Amendment 41-40, certain air carriers requested reconsideration of section 41.136(a)(3) of that amendment which specified that approved cargo bins installed aft of passengers shall not be higher than the height of the passenger seats on the airplane. In addition, comments were received with regard to paragraphs (a)(1) and (4) which indicated a need for a clarification of the strength requirements which a cargo bin and its attachments must meet for approval.

The effective date of Amendment 41–40 was postponed from January 2, 1962, to January 20, 1962, by Amendment 41–41 (26 F.R. 12762). This postponement of the effective date was necessary to provide sufficient time for a complete reevaluation of the provisions of section 41.136(a)(3) and to make other clarifying changes.

As a result of this reevaluation it has been concluded that, regardless of its height, a properly loaded cargo bin which has been constructed and installed in the airplane to meet specific strength requirements will not adversely affect safety if it does not obscure any passenger's view of the "seat belt" or "no smoking" sign. Therefore, this amendment eliminates the height restriction for cargo bins and in lieu thereof adds provisions which (1) requires proper distribution of the weight of the cargo within the bin, (2) prohibit use of bins which exceed the structural load limitation on components of the airplane, and (3) prohibit installing the bin in a location which will obscure any passenger's view of the "seat belt" or "no smoking" sign, unless an auxiliary sign, or some other approved means for notification of the passenger is provided.

The provisions of paragraphs (a) (1) and (4) of this amendment specify the strength which a cargo bin and its attachments must meet for approval. It was intended, in Amendment 41–40, that this strength be such that in the event the airplane was involved in a survivable crash involving high deceleration forces, the cargo bin would not shift forward or be dislodged and injure the passengers. To provide this safeguard, the strength of the bin and its attachments must be able to withstand at least the load factors and emergency landing conditions applicable to the passenger seats installed on the airplane. The combined weight of the cargo bin and its contents must be used to determine this strength. However, in view of the comments received, it appears that the wording of paragraphs (a) (1) and (4) of Amendment 41–40 did not make this strength requirement completely clear. Accordingly, this amendment rewords these paragraphs to specify more clearly the strength requirements which a cargo bin and its attachments must meet for approval.

In addition to the aforementioned changes, other editorial changes were made in this amendment for the purpose of clarification.

Since this amendment relaxes the height requirement of a previous rule which becomes effective January 20, 1962, and imposes no additional burden on any person, I find that notice and public procedure hereon are impractical and unnecessary, and good cause exists for making this amendment effective on less than 30 days' notice.

Amendment rescinded Amendment 41–40 and added a new section 41.136.

Amendment 41–43

Mechanical Reliability Reports

Adopted: Feb. 6, 1962
Effective: Mar. 12, 1962
Published: Feb. 10, 1962
(27 F.R. 1244)

The Federal Aviation Agency published as a notice of proposed rule making (26 F.R. 1410) and circulated as Civil Air Regulations Draft Release No. 61–2 dated February 8, 1961, a proposal to amend Parts 40, 41, 42, and 46 of the Civil Air Regulations to establish requirements for the reporting of specific types of malfunctions, failures, and defects occurring to airplanes.

With the adoption of this amendment, it should be noted that the title, Daily Mechanical Report (DMR), is changed and will hereafter be known as the Mechanical Reliability Report (MRR). The Federal Aviation Agency believes the name to be appropriate in that it is more descriptive of the concept of the report.

The currently effective provisions of Part 41 require operators to submit daily a report known as a daily mechanical report (DMR) which contains information concerning each

failure, malfunctioning, or other defect, regardless of where detected, which may reasonably be expected by the air carrier to cause a serious hazard in the operation of an airplane.

The lack of specific reporting requirements and the fact that each air carrier reported only those items which, in the opinion of the air carrier, constitute a hazard, heretofore resulted in inadequate and nonuniform reporting. Various attempts were made to correct these inadequacies, such as joint industry-government meetings and the use of a trial reporting guide for a 6-month period. Some improvement in reporting was accomplished; however, satisfactory reporting was not achieved. In accordance with the proposal contained in Draft Release 61-2, this amendment specifies certain airplane and airplane component failures, malfunctions, or defects which must be reported by air carriers in mechanical reliability reports. In addition, an air carrier is required to report other airplane and airplane component failures, malfunctions, or defects, even though they are not specified in the rule, when the air carrier is of the opinion that they may seriously endanger the safe operation of its airplanes.

In Draft Release 61-2 it was proposed to require air carriers to report engine shutdowns during flight necessitated or caused by airplane component failure, malfunction, or defect. Although the Agency evaluates the significance of every engine shutdown, regardless of cause or effect, it has been determined that it is presently not necessary to require all engine shutdowns to be included in mechanical reliability reports. Accordingly, in this amendment, the proposed rule has been changed to require mandatory reporting of engine shutdowns only when they involve engine flameout, foreign object ingestion or icing, external damage to the engine or airplane structure, or when more than one engine is shutdown during flight. Paragraph (b)(17) of section 41.130 has been worded to make it clear that action taken to shutdown an engine in flight need not be reported as an emergency action under the requirements of that provision.

Draft Release 61-2 contained a proposal to require reports of failures of the landing gear to extend or retract properly during flight. To avoid any misunderstanding of our intention that landing-gear doors be included in this reporting requirement, this final rule expressly provides for reporting the occurrence of a failure, malfunction, or defect which involves the extension or retraction of the landing gear, or the opening or closing of the landing-gear doors during flight.

Also, it will be noted that paragraph (b)(15) of section 41.130 has been changed from the original proposal so that failures, malfunctions, or defects in airplane structures are required to be reported only if a major repair is necessary.

Many failures, malfunctions, or defects are required to be included in the mechanical reliability report only if they occur during "flight." A note has been added to the rule to explain that in complying with the reporting requirements of section 41.130 an airplane is to be considered in "flight" from the moment it leaves the surface of the earth on takeoff until it touches down at a place of landing.

Attention is directed to the fact that Draft Release 61-2 proposed 13 specific reporting items while this amendment contains 17 reportable items. This increase in the number of items is the result of rewording and expanding the previous items to facilitate administrative handling of the reports within the Agency with automatic data processing equipment.

Another change has been made in this amendment which differs from the original proposal. This change provides that the report shall cover a 24-hour period beginning at 0900 hours local time each day and is to be submitted by 0900 hours of the following day rather than the midnight to midnight report period proposed. In this respect, local time is considered to be the time at each air carrier's main maintenance base. This revision does not alter the 24-hour interval made in the proposal, but is incorporated so that the reports can be handled more expeditiously by the Agency under its new automatic data processing system for evaluating individual reports and for distributing mechanical reliability report summaries.

The currently effective provisions governing daily mechanical reports are set forth in the manual material in section 41.130-1(a). For purposes of consolidation and clarification, we are taking this opportunity to delete section 41.130-1(a) and incorporate in section 41.130 of the basic regulation all of the requirements prescribed in this amendment for mechanical reliability reports.

Likewise, requirements for daily reports concerning chronic mechanical difficulties are currently prescribed in the manual material in section 41.130-1(b). For purposes of con-

solidation and clarification, we are also deleting section 41.130–1(b) and incorporating the substance of that reporting requirement in a new section 41.130a which is being added to the basic regulation. While the title and phraseology of new section 41.130a have been changed to achieve regulatory uniformity, the substantive requirements of the amended rule are the same as those currently contained in the manual material in section 41.130–1.

It will be noted that the provisions of section 41.130a prescribe, in order to avoid duplicate reporting, that those malfunctions or mechanical difficulties reported in mechanical reliability reports need not be reported under the requirements of section 41.130a(a).

The Federal Aviation Agency believes that reports of the failures, malfunctions, and defects required under this amendment, plus additional reports received from the air carriers regarding other occurrences of failures, malfunctions, and defects they consider hazardous, will provide complete, accurate, and uniform reporting. Safety will be served better by this amended reporting procedure as the Agency will be able to disseminate to industry improved reports of hazardous conditions pertaining to airplane systems, components, and equipment. In addition, through analysis of information developed from reports received, the Agency will be able to detect deteriorating conditions in airplane systems, components, and equipment, and issue Airworthiness Directives and Alert Notices before such conditions reach hazardous proportions.

Interested persons have been afforded an opportunity to participate in the making of this amendment and due consideration has been given to all relevant matter presented.

Amendment revised section 41.130 and added a new section 41.130a.

Amendment 41–44

Illumination of Passenger Emergency Exit Markings	Adopted:	Feb. 12, 1962
	Effective:	Mar. 20, 1962
	Published:	Feb. 16, 1962 (27 F.R. 1453)

The Federal Aviation Agency published as a notice of proposed rule making (26 F.R. 9241) and circulated as Civil Air Regulations Draft Release No. 61–20 dated September 21, 1961, a proposal to amend Parts 40, 41, 42, and 46 of the Civil Air Regulations to require the illumination of passenger emergency exit markings during all takeoffs and landings, day and night.

In proposing these amendments, the Agency considered several recent accidents and incidents where illumination of the emergency exits during daylight hours may have resulted in a more effective evacuation of the passengers and crew. The Civil Air Regulations as originally adopted did not require daytime use of the emergency exit lighting system. It is now considered that this additional lighting during daylight hours is necessary to provide maximum safety where the evacuation of large numbers of passengers is concerned.

Interested persons have been afforded an opportunity to participate in the making of this regulation and due consideration has been given to all relevant matter presented. In general, all comments received from interested persons as a result of the Agency's notice of proposed rule making were favorable to the proposal.

Amendment revised section 41.23d(b)(2).

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