

(iv) For single-pilot configurations, instruments which require a static source must be provided with a means of selecting an alternate source and that source must be calibrated.

IX. *Rotorcraft Flight Manual.* A Rotorcraft Flight Manual or Rotorcraft Flight Manual IFR Supplement must be provided and must contain—

(a) *Limitations.* The approved IFR flight envelope, the IFR flightcrew composition, the revised kinds of operation, and the steepest IFR precision approach gradient for which the helicopter is approved;

(b) *Procedures.* Required information for proper operation of IFR systems and the recommended procedures in the event of stability augmentation or electrical system failures; and

(c) *Performance.* If V_{Y1} differs from V_Y , climb performance at V_{Y1} and with maximum continuous power throughout the ranges of weight, altitude, and temperature for which approval is requested.

[Amdt. 27-19, 48 FR 4389, Jan. 31, 1983]

APPENDIX C TO PART 27—CRITERIA FOR CATEGORY A

C27.1 General.

A small multiengine rotorcraft may not be type certificated for Category A operation unless it meets the design installation and performance requirements contained in this appendix in addition to the requirements of this part.

C27.2 Applicable part 29 sections. The following sections of part 29 of this chapter must be met in addition to the requirements of this part:

- 29.45(a) and (b)(2)—General.
- 29.49(a)—Performance at minimum operating speed.
- 29.51—Takeoff data: General.
- 29.53—Takeoff: Category A.
- 29.55—Takeoff decision point: Category A.
- 29.59—Takeoff Path: Category A.
- 29.60—Elevated heliport takeoff path: Category A.
- 29.61—Takeoff distance: Category A.
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- 29.64—Climb: General.
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- 29.67(a)—Climb: OEI.
- 29.75—Landing: General.
- 29.77—Landing decision point: Category A.
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- 29.81—Landing distance (Ground level sites): Category A.
- 29.85—Balked landing: Category A.
- 29.87(a)—Height-velocity envelope.
- 29.547(a) and (b)—Main and tail rotor structure.
- 29.861(a)—Fire protection of structure, controls, and other parts.
- 29.901(c)—Powerplant: Installation.

- 29.903(b) (c) and (e)—Engines.
- 29.908(a)—Cooling fans.
- 29.917(b) and (c)(1)—Rotor drive system: Design.
- 29.927(c)(1)—Additional tests.
- 29.953(a)—Fuel system independence.
- 29.1027(a)—Transmission and gearboxes: General.
- 29.1045(a)(1), (b), (c), (d), and (f)—Climb cooling test procedures.
- 29.1047(a)—Takeoff cooling test procedures.
- 29.1181(a)—Designated fire zones: Regions included.
- 29.1187(e)—Drainage and ventilation of fire zones.
- 29.1189(c)—Shutoff means.
- 29.1191(a)(1)—Firewalls.
- 29.1193(e)—Cowling and engine compartment covering.
- 29.1195(a) and (d)—Fire extinguishing systems (one shot).
- 29.1197—Fire extinguishing agents.
- 29.1199—Extinguishing agent containers.
- 29.1201—Fire extinguishing system materials.
- 29.1305(a) (6) and (b)—Powerplant instruments.
- 29.1309(b)(2) (i) and (d)—Equipment, systems, and installations.
- 29.1323(c)(1)—Airspeed indicating system.
- 29.1331(b)—Instruments using a power supply.
- 29.1351(d)(2)—Electrical systems and equipment: General (operation without normal electrical power).
- 29.1587(a)—Performance information.

NOTE: In complying with the paragraphs listed in paragraph C27.2 above, relevant material in the AC "Certification of Transport Category Rotorcraft" should be used.

[Doc. No. 28008, 61 FR 21907, May 10, 1996]

PART 29—AIRWORTHINESS STANDARDS: TRANSPORT CATEGORY ROTORCRAFT

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- Sec.
- 29.1 Applicability.
- 29.2 Special retroactive requirements.

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- 29.21 Proof of compliance.
- 29.25 Weight limits.
- 29.27 Center of gravity limits.
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- 29.33 Main rotor speed and pitch limits.

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- 29.45 General.
- 29.49 Performance at minimum operating speed.

- 29.51 Takeoff data: general.
- 29.53 Takeoff: Category A.
- 29.55 Takeoff decision point (TDP): Category A.
- 29.59 Takeoff path: Category A.
- 29.60 Elevated heliport takeoff path: Category A.
- 29.61 Takeoff distance: Category A.
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- 29.63 Takeoff: Category B.
- 29.64 Climb: General.
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- 29.71 Helicopter angle of glide: Category B.
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- 29.141 General.
- 29.143 Controllability and maneuverability.
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- 29.395 Control system.
- 29.397 Limit pilot forces and torques.
- 29.399 Dual control system.
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- 29.483 One-wheel landing conditions.
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- 29.493 Braked roll conditions.
- 29.497 Ground loading conditions: landing gear with tail wheels.
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OPERATING LIMITATIONS

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APPENDIX A TO PART 29—INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

APPENDIX B TO PART 29—AIRWORTHINESS CRITERIA FOR HELICOPTER INSTRUMENT FLIGHT

APPENDIX C TO PART 29—ICING CERTIFICATION

APPENDIX D TO PART 29—CRITERIA FOR DEMONSTRATION OF EMERGENCY EVACUATION PROCEDURES UNDER § 29.803

AUTHORITY: 49 U.S.C. 106(g), 40113, 44701-44702, 44704.

SOURCE: Docket No. 5084, 29 FR 16150, Dec. 3, 1964, unless otherwise noted.

Subpart A—General

§ 29.1 Applicability.

(a) This part prescribes airworthiness standards for the issue of type certificates, and changes to those certificates, for transport category rotorcraft.

(b) Transport category rotorcraft must be certificated in accordance with either the Category A or Category B requirements of this part. A multiengine rotorcraft may be type certificated as both Category A and Category B with appropriate and different operating limitations for each category.

(c) Rotorcraft with a maximum weight greater than 20,000 pounds and 10 or more passenger seats must be type certificated as Category A rotorcraft.

(d) Rotorcraft with a maximum weight greater than 20,000 pounds and nine or less passenger seats may be type certificated as Category B rotorcraft provided the Category A requirements of Subparts C, D, E, and F of this part are met.

(e) Rotorcraft with a maximum weight of 20,000 pounds or less but with 10 or more passenger seats may be type certificated as Category B rotorcraft provided the Category A requirements of §§ 29.67(a)(2), 29.87, 29.1517, and subparts C, D, E, and F of this part are met.

(f) Rotorcraft with a maximum weight of 20,000 pounds or less and nine or less passenger seats may be type certificated as Category B rotorcraft.

(g) Each person who applies under Part 21 for a certificate or change described in paragraphs (a) through (f) of this section must show compliance with the applicable requirements of this part.

[Amdt. 29-21, 48 FR 4391, Jan. 31, 1983, as amended by Amdt. 29-39, 61 FR 21898, May 10, 1996; 61 FR 33963, July 1, 1996]

§ 29.2 Special retroactive requirements.

For each rotorcraft manufactured after September 16, 1992, each applicant must show that each occupant's seat is equipped with a safety belt and shoulder harness that meets the requirements of paragraphs (a), (b), and (c) of this section.

(a) Each occupant's seat must have a combined safety belt and shoulder harness with a single-point release. Each pilot's combined safety belt and shoulder harness must allow each pilot, when seated with safety belt and shoulder harness fastened, to perform all