

chapter, including the external-load attaching means) rotorcraft external-load operations over congested areas if those operations are conducted without hazard to persons or property on the surface and comply with the following:

(1) The operator must develop a plan for each complete operation, coordinate this plan with the FAA Flight Standards District Office having jurisdiction over the area in which the operation will be conducted, and obtain approval for the operation from that district office. The plan must include an agreement with the appropriate political subdivision that local officials will exclude unauthorized persons from the area in which the operation will be conducted, coordination with air traffic control, if necessary, and a detailed chart depicting the flight routes and altitudes.

(2) Each flight must be conducted at an altitude, and on a route, that will allow a jettisonable external load to be released, and the rotorcraft landed, in an emergency without hazard to persons or property on the surface.

(e) Notwithstanding the provisions of part 91 of this chapter, and except as provided in §133.45(d), the holder of a Rotorcraft External-Load Operator Certificate may conduct external-load operations, including approaches, departures, and load positioning maneuvers necessary for the operation, below 500 feet above the surface and closer than 500 feet to persons, vessels, vehicles, and structures, if the operations are conducted without creating a hazard to persons or property on the surface.

(f) No person may conduct rotorcraft external-load operations under IFR unless specifically approved by the Administrator. However, under no circumstances may a person be carried as part of the external-load under IFR.

[Doc. No. 24550, 51 FR 40708, Nov. 7, 1986, as amended by Amdt. 133-11, 54 FR 39294, Sept. 25, 1989]

§ 133.35 Carriage of persons.

(a) No certificate holder may allow a person to be carried during rotorcraft external-load operations unless that person—

- (1) Is a flight crewmember;
- (2) Is a flight crewmember trainee;

(3) Performs an essential function in connection with the external-load operation; or

(4) Is necessary to accomplish the work activity directly associated with that operation.

(b) The pilot in command shall ensure that all persons are briefed before takeoff on all pertinent procedures to be followed (including normal, abnormal, and emergency procedures) and equipment to be used during the external-load operation.

[Doc. No. 24550, 51 FR 40708, Nov. 7, 1986]

§ 133.37 Crewmember training, currency, and testing requirements.

(a) No certificate holder may use, nor may any person serve, as a pilot in operations conducted under this part unless that person—

(1) Has successfully demonstrated, to the Administrator knowledge and skill with respect to the rotorcraft-load combination in accordance with §133.23 (in the case of a pilot other than the chief pilot or an assistant chief pilot who has been designated in accordance with §133.21(b), this demonstration may be made to the chief pilot or assistant chief pilot); and

(2) Has in his or her personal possession a letter of competency or an appropriate logbook entry indicating compliance with paragraph (a)(1) of this section.

(b) No certificate holder may use, nor may any person serve as, a crewmember or other operations personnel in Class D operations conducted under this part unless, within the preceding 12 calendar months, that person has successfully completed either an approved initial or a recurrent training program.

(c) Notwithstanding the provisions of paragraph (b) of this section, a person who has performed a rotorcraft external-load operation of the same class and in an aircraft of the same type within the past 12 calendar months need not undergo recurrent training.

[Doc. No. 24550, 51 FR 40708, Nov. 7, 1986]

§ 133.39 Inspection authority.

Each person conducting an operation under this part shall allow the Administrator to make any inspections or

tests that he considers necessary to determine compliance with the Federal Aviation Regulations and the Rotorcraft External-Load Operator Certificate.

[Doc. No. 1529, 29 FR 603, Jan. 24, 1964. Redesignated by Amdt. 133-9, 51 FR 40708, Nov. 7, 1986]

Subpart D—Airworthiness Requirements

§ 133.41 Flight characteristics requirements.

(a) The applicant must demonstrate to the Administrator, by performing the operational flight checks prescribed in paragraphs (b), (c), and (d) of this section, as applicable, that the rotorcraft-load combination has satisfactory flight characteristics, unless these operational flight checks have been demonstrated previously and the rotorcraft-load combination flight characteristics were satisfactory. For the purposes of this demonstration, the external-load weight (including the external-load attaching means) is the maximum weight for which authorization is requested.

(b) Class A rotorcraft-load combinations: The operational flight check must consist of at least the following maneuvers:

- (1) Take off and landing.
- (2) Demonstration of adequate directional control while hovering.
- (3) Acceleration from a hover.
- (4) Horizontal flight at airspeeds up to the maximum airspeed for which authorization is requested.

(c) *Class B and D rotorcraft-load combinations*: The operational flight check must consist of at least the following maneuvers:

- (1) Pickup of the external load.
- (2) Demonstration of adequate directional control while hovering.
- (3) Acceleration from a hover.
- (4) Horizontal flight at airspeeds up to the maximum airspeed for which authorization is requested.
- (5) Demonstrating appropriate lifting device operation.
- (6) Maneuvering of the external load into release position and its release, under probable flight operation conditions, by means of each of the quick-re-

lease controls installed on the rotorcraft.

(d) Class C rotorcraft-load combinations: For Class C rotorcraft-load combinations used in wire-stringing, cable-laying, or similar operations, the operational flight check must consist of the maneuvers, as applicable, prescribed in paragraph (c) of this section.

[Doc. No. 1529, 29 FR 603, Jan. 24, 1964, as amended by Amdt. 133-5, 41 FR 55475, Dec. 20, 1976; Amdt. 133-9, 51 FR 40709, Nov. 7, 1986]

§ 133.43 Structures and design.

(a) *External-load attaching means*. Each external-load attaching means must have been approved under—

- (1) Part 8 of the Civil Air Regulations on or before January 17, 1964;
- (2) Part 133, before February 1, 1977;
- (3) Part 27 or 29 of this chapter, as applicable, irrespective of the date of approval; or
- (4) Section 21.25 of this chapter.

(b) *Quick release devices*. Each quick release device must have been approved under—

- (1) Part 27 or 29 of this chapter, as applicable;
- (2) Part 133, before February 1, 1977; or
- (3) Section 21.25 of this chapter, except the device must comply with §§ 27.865(b) and 29.865(b), as applicable, of this chapter.

(c) *Weight and center of gravity*—

(1) *Weight*. The total weight of the rotorcraft-load combination must not exceed the total weight approved for the rotorcraft during its type certification.

(2) *Center of gravity*. The location of the center of gravity must, for all loading conditions, be within the range established for the rotorcraft during its type certification. For Class C rotorcraft-load combinations, the magnitude and direction of the loading force must be established at those values for which the effective location of the center of gravity remains within its established range.

[Doc. No. 14324, 41 FR 55475, Dec. 20, 1976, as amended by Amdt. 133-12, 55 FR 8006, Mar. 6, 1990]