

REGULATIONS
Civil Aviation Act 6 of 2016

Namibian Civil Aviation Regulations, 2001

PART 133
CERTIFICATED AIRCRAFT OPERATORS AND OTHER FLIGHT OPERATIONS:
HELICOPTER EXTERNAL-LOAD OPERATIONS

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SUBPART 1
GENERAL

Applicability

133.01.1 (1) This Part shall apply to -

- (a) helicopters engaged in commercial and non-commercial external-load operations within Namibia;
- (b) helicopters registered in Namibia and engaged in commercial and non-commercial international external-load operations; and
- (c) persons acting as crew members of the helicopters operated in terms of the regulations in this Part.

(2) The certification rules of this Part shall not apply to -

- (a) helicopter manufacturers when developing external-load attaching means;
- (b) helicopter manufacturers demonstrating compliance of equipment utilised under the regulations in this Part or Part 21;
- (c) operations conducted by a person demonstrating compliance for the issue of any certificate or authorisation under the regulations in this Part; or
- (d) training flights conducted in preparation for the demonstration of compliance with the regulations in this Part.

(3) For the purposes of the regulations in this Part, any person other than a crew member or a person who is charged with duties essential to the helicopter external-load operation, may only be carried in a Class D helicopter-load combination.

(4) For the purposes of the regulations in this Part, external-load operations include underslung load operations, winching operations and any operation in which the helicopter is connected by means of a cable to another object, including towing.

(5) Unless the context otherwise indicates, external-load operations shall be conducted in accordance with the provisions of the regulations in this Part and in addition, the applicable regulations in Part 91 and Part 127.

Requirements for commercial external-load operations

133.01.2 The operator of a helicopter engaged in a commercial external-load operation, shall not operate the helicopter unless such operator is the holder of a valid air operator certificate issued in terms of the regulations in Part 127.

SUBPART 2
OPERATING RULES AND RELATED REQUIREMENTS

Operating rules

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133.02.1 (1) No owner, operator or pilot-in-command, as the case may be, of a helicopter engaged in an external-load operation, shall operate the helicopter without, or contrary to, the helicopter-load combination flight manual referred to in regulation 133.03.4.

(2) The owner, operator or pilot-in-command shall not operate the helicopter unless -

- (a) a standard category type certificate or a restricted category type certificate has been issued in respect of such helicopter;
- (b) a valid certificate of airworthiness has been issued in respect of such helicopter; and
- (c) such helicopter complies with the applicable certification requirements prescribed in Part 127 which apply to the helicopter-load combinations of the operation.

(3) The pilot-in-command of the helicopter shall, before such pilot-in-command operates such helicopter with an external-load configuration which differs substantially from any external-load configuration previously carried with such type of helicopter, irrespective of whether the helicopter-load combination is of the same class, conduct, in a manner that will not endanger persons or property on the surface, the following applicable flight-operational checks:

- (a) A determination that -
 - (i) the mass of the helicopter-load combination and the location of its centre of gravity are within approved limits;
 - (ii) the external-load is securely fastened; and
 - (iii) the external-load does not interfere with devices provided for its emergency release;
- (b) make an initial lift-off and verify that controllability is satisfactory;
- (c) while hovering, verify that directional control is adequate;
- (d) accelerate into forward flight to verify that no attitude of the helicopter or of the external-load is encountered, in which the helicopter is uncontrollable or which is otherwise hazardous;

[The word “altitude” is misspelt in the *Government Gazette*, as reproduced above.]

- (e) in forward flight, check for hazardous oscillations of the external-load: Provided that if the external-load is not visible to such pilot-in-command, other crew members or ground personnel may make this check and signal the pilot-in-command; and
- (f) increase the forward airspeed and determine an operational airspeed at which no hazardous oscillation or hazardous aerodynamic turbulence is encountered.

(4) Notwithstanding the provisions of the regulations in Part 91, the owner, operator or pilot-in-command of a helicopter in respect of which a restricted category type certificate has been issued, may conduct an external-load operation over densely inhabited areas, if the operation is conducted without endangering persons, or cause a nuisance to property, animals or birds on the ground and complies with the following:

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- (a) The owner, operator or pilot-in-command shall compile an approved plan for each complete operation, which shall include -
 - (i) an agreement with the appropriate local authority that local officials will exclude unauthorised persons from the area in which the operation will be conducted;
 - (ii) coordination with the appropriate air traffic service unit, if necessary; and
 - (iii) a detailed chart depicting the flight routes and altitudes; and
- (b) each flight shall be conducted at an altitude, and on a route, that will allow -
 - (i) an external-load which is capable of being jettisoned, to be released; and
 - (ii) the helicopter to land in an emergency without hazard to persons or property on the surface.

(5) Notwithstanding the provisions of the regulations in Part 91 and except as prescribed in regulation 133.03.3(2)(d), the owner, operator or pilot-in-command of a helicopter engaged in an external-load operation, may conduct the operation, including an approach, departure, and load positioning manoeuvre necessary for the operation, below 500 feet above the surface and closer than 500 feet to persons, vessels, vehicles and structures, if such operation is conducted without endangering persons, or cause a nuisance to property, animals or birds on the ground.

(6) No owner, operator or pilot-in-command of a helicopter engaged in an external-load operation, shall conduct the operation under IFR, except with the prior approval of the Director: Provided that no person shall be carried as part of the external-load under IFR.

Carriage of persons

133.02.2 (1) The owner, operator or pilot-in-command, as the case may be, of a helicopter engaged in an external-load operation, shall ensure that no person is carried during the external-load operation unless such person -

- (a) is a crew member;
- (b) is a crew member trainee;
- (c) is charged with duties essential to the helicopter external-load operation;
- (d) is necessary to accomplish the work activity directly associated with that operation;
or
- (e) is being winched on board the helicopter during such external-load operation.

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

Crew member training, currency and testing requirements

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133.02.3 (1) The owner or operator of a helicopter engaged in an external-load operation, shall ensure that the pilot-in-command -

- (a) is the holder of a valid external-load rating (helicopter) or winching rating (helicopter), as the case may be, issued in terms of the regulations in Part 61; and
- (b) has the knowledge in respect of the helicopter-load combination, including -
 - (i) the steps to be taken before starting operations, including a survey of the flight area;
 - (ii) the proper method of loading, rigging or attaching the external-load;
 - (iii) the performance capabilities, under approved operating procedures and limitations, of the helicopter to be used;
 - (iv) the proper instructions of crew and ground personnel; and
 - (v) the applicable helicopter-load combination flight manual;
- (c) has the skill in respect of the helicopter-load combination including -
 - (i) take-off and landing;
 - (ii) directional control while hovering;
 - (iii) acceleration from a hover;
 - (iv) flight at operational airspeeds;
 - (v) approaches to landing or working area;
 - (vi) manoeuvring the external-load into the release position; and
 - (vii) winch operation, if a winch is installed to hoist the external-load.

(2) The owner or operator of a helicopter engaged in a Class D helicopter external-load operation, shall ensure that each crew member or other operations personnel member, successfully completes the appropriate initial or recurrent training, as the case may be.

(3) Upon successful completion of the initial or recurrent training, the operator shall issue a certificate of competency to the crew member or other operations personnel member concerned, which certificate shall be valid for a period of 12 months calculated from the date on which such certificate was issued.

(4) Notwithstanding the provisions of subregulation (2), a crew member or other operations personnel who has performed a helicopter external-load operation of the same class and in a helicopter of the same type within the past 12 months, need not undergo recurrent training.

SUBPART 3
AIRWORTHINESS REQUIREMENTS

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Flight characteristics requirements

133.03.1 (1) The owner or operator of a helicopter engaged in an external-load operation, shall demonstrate to the Director, by performing the operational flight checks prescribed in subregulation (3), (4) or (5), as the case may be, that the helicopter-load combination to be used in the operation, has satisfactory flight characteristics.

(2) For the purposes of the demonstration, the external-load mass, including the external-load attaching means, is the maximum mass for which authorisation is requested.

(3) In the case of a Class A helicopter-load combination, the operational flight check shall consist of at least the following manoeuvres:

- (a) Take-off and landing;
- (b) demonstration of adequate directional control while hovering;
- (c) acceleration from a hover; and
- (d) horizontal flight at airspeeds up to the maximum airspeed for which authorisation is requested.

(4) In the case of a Class B and a Class D helicopter-load combination, the operational flight check shall consist of at least the following manoeuvres:

- (a) Pick up of the external-load;
- (b) demonstration of adequate directional control while hovering;
- (c) acceleration from a hover;
- (d) horizontal flight at airspeeds up to the maximum airspeed for which authorisation is requested;
- (e) demonstrating appropriate lifting device operation; and
- (f) manoeuvring of the external-load into release position and its release, under probable flight operation conditions, by means of each of the quick-release controls installed in the helicopter.

(5) In the case of a Class C helicopter-load combination used in wire-stringing, cable-laying, or similar operations, the operational flight check shall consist of the appropriate manoeuvres prescribed in subregulation (4).

Structures and design

133.03.2 (1) Each external-load attaching means and each quick-release device shall have been approved under Part 21.

(2) The total mass of the helicopter-load combination shall not exceed the total mass approved for the helicopter during its type certification.

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(3) The location of the centre of gravity shall, for all loading conditions, be within the range established for the helicopter during its type certification.

(4) For a Class C helicopter-load combination, the magnitude and direction of the loading force shall be established at those values for which the effective location of the centre of gravity remains within its established range.

Operating limitations

133.03.3 (1) In addition to the operating limitations contained in the aircraft flight manual referred to in regulation 91.03.2, and any other limitations which the Director may determine, the owner or operator of a helicopter engaged in an external-load operation, shall establish operating limitations and publish the operating limitations in the helicopter-load combination flight manual referred to in regulation 133.03.4, for helicopter-load combination operations.

- (2) The operating limitations established by the owner or operator shall include -
- (a) the mass and centre of gravity limitations established in accordance with regulation 133.03.2(2), within which the helicopter-load combination may be operated;
 - (b) the external-load mass of the helicopter-load combination which shall not exceed the external-load mass referred to in regulations 133.03.1 and 133.03.2;
 - (c) the airspeeds at which the helicopter-load combination may be operated, which airspeeds shall not be greater than the airspeeds established in accordance with regulation 133.03.1(3), (4) or (5);
 - (d) a prohibition on the conducting of an external-load operation in terms of the regulations in this Part, with a helicopter, type certificated in the restricted category in terms of the regulations in Part 21, over a densely inhabited area, in a congested airway, or near an aerodrome licensed in terms of the regulations in Part 139; and
 - (e) in the case of a Class D helicopter-load combination, such combination may only be conducted in accordance with the following:
 - (i) The helicopter to be used shall provide hover capability with one engine inoperative at that operating mass and altitude;
 - (ii) the helicopter shall be equipped to allow direct radio intercommunication among required crew members;
 - (iii) the personnel lifting device shall be of an approved type; and
 - (iv) the lifting device shall have an emergency release requiring two distinct actions.

Helicopter-load combination flight manual

133.03.4 (1) The owner or operator of a helicopter to be used in an external-load operation, shall compile a helicopter-load combination flight manual and submit the helicopter-load combination flight manual for approval to the Director.

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(2) The helicopter-load combination flight manual shall be prepared in accordance with the aircraft flight manual referred to in regulation 91.03.2.

(3) The helicopter-load combination flight manual shall include -

- (a) the operating limitations, other than the limiting height-speed envelope data, normal, abnormal and emergency procedures, performance and any other information required in terms of this Subpart;
- (b) the class of helicopter-load combinations for which the airworthiness of the helicopter has been demonstrated in accordance with regulations 133.03.1 and 133.03.2; and
- (c) in the information section of the helicopter-load combination flight manual -
 - (i) information on any peculiarities discovered when operating particular helicopter-load combinations;
 - (ii) precautionary advice regarding static electricity discharges for Class B, Class C and Class D helicopter-load combinations; and
 - (iii) any other information essential for safe operation with external-loads.

(4) The operator shall include the helicopter-load combination flight manual in the operations manual referred to in regulation 127.04.3.

Markings and placards

133.03.5 The owner or operator of a helicopter engaged in an external-load operation, shall ensure that the markings and placards as prescribed in Document NAM-CATS-OPS 133, are displayed in a conspicuous place and cannot be easily erased, disfigured, or obscured.

Equipment

133.03.6 When the pilot at the flight controls of a helicopter engaged in an external-load operation, is not verbally guided by a crew member on board the helicopter, or by a person on the ground using two-way radio communication or the appropriate hand signals, and such pilot is not able to monitor the external-load from his or her station, such helicopter shall be fitted with a mirror in such manner that such pilot is able to monitor the external-load from his or her station and conduct the operation without such guidance.