

PART II

HELICOPTER EXTERNAL-LOAD

*Applicability of Part II*

21. (1) This Part prescribes—

Applicability  
of Part II

- (a) certification and airworthiness requirements for rotorcraft used in external-load operations; and
- (b) the operating and certification requirements governing the conduct of rotorcraft external-load operations in Trinidad and Tobago.

(2) The certification requirements under these Regulations shall not apply to—

- (a) rotorcraft manufacturers when developing external-load attaching means;
- (b) operations conducted by a person demonstrating compliance for the issuance of a certificate or authorization under these Regulations;
- (c) training flights conducted in preparation for the demonstration of compliance with these Regulations; or
- (d) the conduct of operations by the Government of Trinidad and Tobago utilizing a public aircraft.

(3) A person other than a crew member or a person who is essentially and directly connected with external-load operation shall be carried only in approved Class D rotorcraft-load combinations.

*Rotorcraft External-Load Operator Certificate*

22. Subject to regulation 4(3), a person shall not conduct rotorcraft external-load operations without a Rotorcraft External-Load Operator Certificate or in violation of the terms of such Certificate or equivalent authorization issued by the Authority.

Rotorcraft  
External-  
Load  
Operator  
Certificate  
required

*Application for and Renewal of Rotorcraft External-Load Operator Certificate*

23. A person wishing to apply for a Rotorcraft External-Load Operator Certificate or a renewal of a Rotorcraft External-Load Operator Certificate under this Part shall—

Application  
for issue or  
renewal of  
Rotorcraft  
External-  
Load  
Operator  
Certificate

- (a) apply to the Authority in the prescribed form; and
- (b) pay the prescribed fees.

***Personnel of the Holder of a Rotorcraft External-Load Operator Certificate***

Personnel requirements for a Rotorcraft External-Load Operator Certificate

24. (1) An applicant under regulation 23 for a Rotorcraft External- Load Operator Certificate shall hold, or have available the services of at least one person who holds a current—

- (a) Commercial Pilot Licence; or
- (b) Airline Transport Pilot Licence,

with a rating appropriate for the rotorcraft to be used.

(2) An applicant under regulation 24 shall designate one person or any other suitably qualified person for rotorcraft external-load operations.

(3) An applicant may designate suitably qualified pilots as assistant chief pilots to perform the functions of the chief pilot where the chief pilot is not readily available.

(4) A person selected as chief pilot and assistant chief pilot shall be acceptable to the Authority and shall hold a current—

- (a) Commercial Pilot Licence; or
- (b) Airline Transport Pilot Certificate,

with a rating appropriate for the rotorcraft to be used.

(5) A person holding a Rotorcraft External-Load Operator Certificate shall report any change in designation of the chief pilot or assistant chief pilot immediately to the Authority.

(6) An operator shall not continue to conduct operations under the Rotorcraft External-Load Operator Certificate unless the chief pilot demonstrates compliance with the knowledge and skill requirements within thirty days of his designation, or where otherwise authorized by the Authority.

***Issue of Rotorcraft External-Load Operator Certificate***

Issuance of a Rotorcraft External-Load Operator Certificate

25. Where the Director General is satisfied that an applicant under regulation 24 meets the requirements under this Part, he may recommend the Authority issue a Rotorcraft External-Load Operator Certificate with an authorization to operate specified rotorcraft with the classes of rotorcraft-load combinations for which the applicant or certificate holder qualifies under the applicable provisions of this Part.

***Exclusive use of a Rotorcraft***

26. An applicant under regulation 23 shall have the exclusive use of at least one rotorcraft that—

Requirements  
for use of  
Rotorcraft

- (a) was type certified under, and meets the requirements for rotorcraft external-load operations under the several parts of these regulations which prescribe the requirements for rotorcraft external-load operations;
- (b) complies with the certification provisions in this Part that apply to the rotorcraft-load combinations for which an Rotorcraft External-Load Operator Certificate is required; and
- (c) has a valid Airworthiness Certificate.

***Duration of Rotorcraft External-Load Operator Certificate***

27. A Rotorcraft External-Load Operator Certificate issued by the Authority shall be valid for a period of twelve months from the date of issue unless otherwise surrendered, suspended or revoked.

Duration of  
Rotorcraft  
External-  
Load  
Operator  
Certificate

***Amendment of a Rotorcraft External-Load Operator Certificate***

28. (1) A person holding a Rotorcraft External-Load Operator Certificate may apply to the Authority to amend his Rotorcraft External-Load Certificate, by either adding or deleting a Rotorcraft- Load Combination Authorization.

Amendment  
of Rotorcraft  
External-  
Load  
Operator  
Certificate

(2) An application under subregulation (1) shall be accompanied by a new list of rotorcraft, the registration number of the rotorcraft, the classes of rotorcraft-load combinations for which authorization is sought.

***Rotorcraft External-Load Operator Certificate to be Kept or Returned***

29. (1) A person conducting rotorcraft external-load operation under this Part shall keep a copy of his Rotorcraft External-Load Operator Certificate in each rotorcraft used in his operation.

Rotorcraft  
External-  
Load  
Operator  
Certificate to  
be kept or  
returned

(2) Where a Rotorcraft External-Load Operator Certificate—

- (a) is suspended or revoked by the Authority; or
- (b) a certificate holder discontinues operations and does not resume operations within two years,

he shall return the Rotorcraft External-Load Operator Certificate to the Authority.

***Rotorcraft Operating Rules***Rotorcraft  
Operating  
Rules

30. (1) A person shall not conduct rotorcraft external-load operations without, or contrary to, the Rotorcraft-Load Combination Flight Manual prescribed in regulation 36.

(2) A person shall not conduct rotorcraft-external-load operation unless—

(a) the rotorcraft complies with the requirements under regulation 26; and

(b) the rotorcraft and rotorcraft-load combination is authorized under the Rotorcraft External-Load Operator Certificate.

(3) A person shall not operate a rotorcraft with external-load configuration that differs substantially from that which he previously operated whether or not the rotorcraft-load combination is of the same class, unless that person conducts the following operational checks:

(a) a determination that the weight of the rotorcraft or load combination and the location of its centre of gravity are within approved limits;

(b) that the external-load is securely fastened;

(c) that the external-load does not interfere with devices provided for its emergency release;

(d) make an initial lift-off and verify that controllability is satisfactory;

(e) while hovering, verify that directional control is adequate;

(f) accelerate into forward flight to verify that no attitude whether of the rotorcraft or of the external-load is encountered in which the rotorcraft is uncontrollable or which is otherwise hazardous;

(g) in forward flight, check for hazardous oscillations of the external-load and where the external-load is not visible to the pilot, other crew members or ground personnel may assist in this check and signal the pilot; and

(h) 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 Civil Aviation [(No. 2) Operations] Regulations, 2004, a person holding a Rotorcraft External- Load Operator Certificate may conduct rotorcraft external-load operations over congested areas if such operations are conducted without jeopardizing the safety of persons or property on the surface and comply with the following requirements:

- (a) the operator shall develop a plan for each complete operation and obtain approval for such operation from the Authority which shall include—
  - (i) an agreement with the appropriate agency that he will exclude unauthorized persons from the area in which the operation will be conducted;
  - (ii) co-ordination of operations with Air Traffic Control; and
  - (iii) where necessary, a detailed chart depicting the flight routes and altitudes;
- (b) a flight shall be conducted at an altitude, and on a route, that will allow jettisoning of external-load and landing of the rotorcraft, in an emergency without jeopardizing the safety of persons or property on the surface.

(5) Notwithstanding the provisions of the Civil Aviation [(No. 2) Operations] Regulations, 2004, and except as provided in regulation 35(1)(d), a person holding a Rotorcraft External-Load Operator Certificate may conduct external-load operations, including approaches, departures, and load positioning manoeuvres necessary for the operating, below five hundred feet above the surface and closer than five hundred feet to persons, vessels, vehicles, and structures, if the operations are conducted without jeopardizing the safety of persons or property on the surface.

(6) A person shall not conduct rotorcraft external-load operations under Instrument Flight Rules unless approval is obtained from the Authority.

***Restrictions on the Carriage of Persons***

31. (1) A person holding a Rotorcraft External-Load Operator Certificate shall not allow any person to be carried on board a rotorcraft during external-load operations unless such person—

Restrictions on the carriage of persons by the holder of a Rotorcraft External-Load Operator Certificate

- (a) is a flight crew member;
- (b) is a flight crew member trainee;
- (c) performs an essential function in connection with the rotorcraft external-load operation; or
- (d) is necessary to accomplish any work activity directly associated with that operation.

(2) The pilot in command of an aircraft involved in external load operations shall ensure that all persons are briefed before take-off on all important 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***

Crew member training, currency and testing requirements for the holder of a Rotorcraft External-Load Operator Certificate

32. (1) A person holding a Rotorcraft External-Load Operator Certificate shall not use or allow any other person to serve as a pilot in any helicopter external-load operations unless that person—

- (a) has successfully demonstrated to the Authority the knowledge and skill requirements in relation to rotorcraft load combination; and
- (b) has in his possession a letter of competency or an appropriate logbook entry indicating compliance with regulation (1)(a).

(2) A person holding a Rotorcraft External-Load Operator Certificate shall not use any other person to serve as a crew member or other operations personnel in Class D operations unless such person has within the preceding twelve months successfully completed either an approved initial or a recurrent training programme.

(3) Notwithstanding subregulation (2), 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 twelve months may not be required to undergo an approved or recurrent training programme.

***Flight Characteristics Requirements***

Flight characteristics requirements

33. (1) An applicant for a Rotorcraft External-Load Operator Certificate shall successfully demonstrate to the Authority an operational flight check showing that the rotorcraft load combination has satisfactory flight characteristics except where such a flight check had been previously successfully demonstrated by the applicant.

(2) The external-load weight including the external-load attaching mechanism for which the applicant is required to demonstrate operational flight checks under subregulation (1) shall have the maximum weight for which authorization is granted.

(3) For a Class A rotorcraft-load combination, the operational flight check shall include 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 authorization is requested.

(4) For Class B and Class D rotorcraft-load combinations the operational flight check shall include the following manoeuvres:

- (a) pickup 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 authorization 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 on the rotorcraft.

(5) For a Class C rotorcraft-load combination, used in wire-stringing, cable-laying, or similar operations, the operational flight check shall consist of such relevant manoeuvres, as prescribed in subregulation (4).

***Structures and Design of External-Load Attaching Means***

34. Where the Director General is satisfied that the structure and design of the external-load attaching means of a rotorcraft meets the requirements under this Part he may recommend the Authority may approve—

Approvals based on structures and design of external-load attaching means

- (a) external-load attaching means;
- (b) quick release device; and
- (c) weight and centre of gravity for—
  - (i) the total weight of the rotorcraft-load combination which shall not exceed the total weight approved for the rotorcraft during its type certification;
  - (ii) the location of the centre of gravity shall, for all loading conditions, be within the range established for the rotorcraft during its type certification; and
  - (iii) 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 centre of gravity remains within its established range.

***Operating Limitations***

35. (1) In addition to the operating limitations in the approved Rotorcraft Flight Manual required by regulation 36, and any other limitations the Director General may prescribe, a person holding a Rotorcraft External-Load Operator Certificate shall establish and set out in the Rotorcraft-Load Combination Flight Manual for rotorcraft load combination operations the following limitations requirements:

Operating limitations for the holder of a Rotorcraft External-Load Operator Certificate

- (a) the rotorcraft-load combination shall be operated only within the weight and centre of gravity limitations established in accordance with this Part;
- (b) the rotorcraft-load combination shall not be operated with an external-load weight exceeding that used in showing compliance with this Part;
- (c) the rotorcraft-load combination shall not be operated at airspeeds greater than those established in accordance with this Part; and
- (d) external-load operation under this Part shall not conduct with a rotorcraft type certified in the restricted category over—
  - (i) a densely populated area;
  - (ii) in a congested airway; or
  - (iii) near a busy airport where passenger transport operations are conducted.

(2) The rotorcraft-load combination of Class D may be conducted only in accordance with the following guidelines:

- (a) the rotorcraft to be used shall be type certified under transport Category A for the operating weight and provide hover capability with one engine inoperative at that operating weight and altitude;
- (b) the rotorcraft shall be equipped to facilitate direct radio intercommunication among required crew members;
- (c) the personnel-lifting device shall be approved by the Authority; and
- (d) the lifting device shall have an emergency release requiring two distinct actions.

***Rotorcraft-Load Combination Flight Manual***

Requirement  
for a  
Rotorcraft-  
Load  
Combination  
Flight  
Manual

36. (1) An applicant for a Rotorcraft External-Load Operator Certificate shall prepare and submit a Rotorcraft-Load Combination Flight Manual for approval by the Authority which shall include—

- (a) operating limitations, normal and emergency procedures, performance, and other information established under this Part;
- (b) the class of rotorcraft-load combinations for which the airworthiness of the rotorcraft has been demonstrated in accordance with this Part;
- (c) any peculiarities discovered when operating particular rotorcraft-load combinations;

(d) precautionary advice regarding static electricity discharges for Class B, Class C, and Class D rotorcraft-load combinations; and

(e) any other information essential for safe operation with external loads.

(2) A Rotorcraft Flight Manual under this regulation may not include the limitation on height or speed envelope data.

(2A) (1) Notwithstanding the requirement of subregulation (2)(a), in actual rescue operations or in emergency situations where there is a demonstrated urgent requirement for a winch-equipped helicopter, or where training or demonstrations for the purpose necessitates the actual lifting or lowering of persons, multi-engine or single engine helicopters may be used.

(2B) Where a multi-engine helicopter is used in operations prescribed under subregulation (2A), the helicopter need not be capable of hovering out of ground effect with one engine inoperative.

### ***Requirements for Markings and Placards***

37. (1) All markings and placards on a rotorcraft shall be conspicuous and shall be engraved in such a manner that it cannot be easily erased, disfigured, or obscured.

Requirements  
for markings  
and placards

(2) The markings and placards under subregulation (1) shall include a placard—

(a) displayed in the cockpit or cabin, stating the class of rotorcraft-load combination and the occupancy limitation for which the rotorcraft has been approved; and

(b) with marking, or instruction displayed next to the external-load attaching means stating the maximum external-load approved.

### ***Airworthiness Certification***

38. A Rotorcraft External-Load Operator Certificate is a current and valid Airworthiness Certificate for each rotorcraft type and listed by a registration number on a list attached to his Rotorcraft External- Load Operator Certificate, when the rotorcraft is being used in operations conducted under these Regulations.

Holder of a  
Rotorcraft  
External-  
Load  
Operator  
Certificate to  
have an  
Airworthiness  
Certificate

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