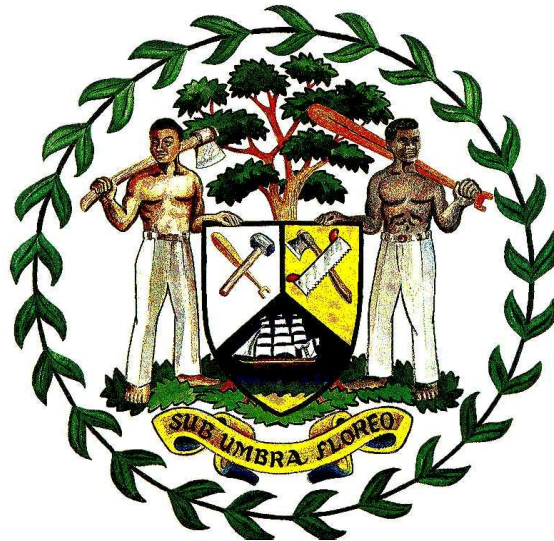


BELIZE

DEPARTMENT OF

CIVIL AVIATION



BELIZE CIVIL AVIATION REGULATIONS

AERIAL WORK

(BCAR – 137)

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**BELIZE CIVIL AVIATION REGULATIONS
AIR TRAFFIC SERVICES**

BCAR 137

Issue and Revision System

REVISIONS TO THIS REGULATION WILL BE INDICATED BY A VERTICAL BAR ON THE LEFT SIDE, IN FRONT OF THE LINE, SECTION OR FIGURE THAT HAS BEEN AFFECTED. AN ISSUE WILL BE THE REPLACEMENT OF THE COMPLETE DOCUMENT.

REVISIONS MUST BE RECORDED ON THE RECORD OF REVISIONS TABLE OF THIS DOCUMENT, INDICATING THE RESPECTIVE NUMBER, DATE IT WAS ENTERED AND SIGNED BY THE PERSON ENTERING THE REVISION.



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PART I

Preliminary

1. Applicability

Any aircraft used for specialized services such as agriculture, photography, surveying, observation and patrol, search and rescue and aerial advertisement

2 Definitions

(a) In these BCARs,

“aerial work” means operations in an aircraft used for specialized services such as agriculture, section photography, surveying, observation and patrol, search and rescue, aerial advertisement;

“aerobatic flight” means an intentional maneuver of an aircraft involving an abrupt change in the attitude of an aircraft, an abnormal attitude, or abnormal acceleration of an aircraft, not necessary for normal flight;

“agricultural aircraft operation” means aerial work in an aircraft for the purpose of:

- (1) dispensing any economic poison;
- (2) dispensing any other substance intended for plant nourishment, soil treatment, propagation of plant life or pest control; or
- (3) engaging in dispensing activities directly affecting agriculture, horticulture, or forest preservation, but not including the dispensing of live insects;

“air operator” means a person who undertakes to engage in domestic commercial air transport or international commercial air transport, whether directly or indirectly or by a lease or any other arrangement;

“banner” means an advertising medium supported by a temporary framework attached externally to the aircraft and towed behind the aircraft;

“economic poison” means a substance or mixture of substances intended for

- (1) preventing, destroying, repelling, or mitigating any insects, rodents, nematodes,

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fungi, weeds and other forms of plant or animal life or viruses, which the appropriate agency may declare to be a pest; and
(2) use as a plant regulator, defoliant or desiccant;

“movie” means any film, video and live broadcast in any format and the preparation and rehearsal for these operations;

“public aircraft” means an aircraft used only for the Belize Government or owned and operated by a Government of a foreign State, but not conducting commercial operations; and

“rotorcraft load combinations” means configurations for external-loads carried by rotorcraft in the classes set out as follows

“Class A rotorcraft load combination” means one in which the external load cannot move freely, cannot be jettisoned, and does not extend below the landing gear.

“Class B rotorcraft load combination” means one in which the external load is jettisonable and is lifted free of land or water during the rotorcraft operation.

“Class C rotorcraft load combination” means one in which the external load is jettisonable and remains in contact with land or water during the rotorcraft operation.

“Class D rotorcraft load combination” means one in which the external-load is other than a Class A, B, or C and has been specifically approved by the Director for that operation.

PART II

Agricultural Aircraft Operations

3. Applicability to Agricultural Aircraft Operations

(a) This Part prescribes

- (1) the manner in which agricultural aircraft operations may be conducted within Belize; and



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(2) the issue of an agricultural aircraft operator certificate for those operations.

(b) These BCARs apply to commercial aircraft operation used for specialized services.

(c) A person conducting agricultural aircraft operations under this BCAR, may, in a public emergency, where necessary, deviate from the operating rules under this BCAR for relief and welfare activities that are approved by the Director.

(d) A person who, deviates from the operating rules under this BCAR shall, within 10 days after such deviation, submit to the Director a complete report of the aircraft operation involved, including a description and the reasons for the deviation.

4. Agricultural Aircraft Operator Certificate.

(a) For the purpose of this BCAR "certificate" means an agricultural aircraft operator certificate.

(b) Except as provided in paragraph (d) a person shall not conduct agricultural aircraft operations without a certificate issued by the Director.

(c) An operator may, where he complies with regulations 3 and 5 through 21, conduct agricultural aircraft operations with a rotorcraft with external dispensing equipment without a rotorcraft external-load operator's certificate required by regulation 23.

(d) A person holding a rotorcraft external-load operator's certificate under these BCARs may conduct an agricultural aircraft operation involving the dispensing of water on forest fires by rotorcraft external-load means.

5. Certificate Requirements.

(a) An applicant for a certificate shall hold either a current

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- (1) private pilot license;
- (2) commercial pilot license; or
- (3) airline transport pilot license, issued by the Director, and be properly rated for the aircraft to be used in the operation.

(b) An applicant referred to in paragraph (a), shall satisfactorily demonstrate to the Director

(1) that he meets the following knowledge requirements:

- (i) the steps to be taken before starting operations, including a survey of the area to be worked;
- (ii) the safe handling of economic poisons and the proper disposal of used containers for those poisons;
- (iii) the general effects of economic poisons and agricultural chemicals on plants, animals, and persons, and the precautions to be observed in using economic poisons and chemicals;
- (iv) the primary symptoms of poisoning persons from economic poison, the appropriate emergency measures to be taken, and the location of poison control centers;
- (v) the performance capabilities and operating limitations of the aircraft to be used;
- (vi) safe flight and application procedures; and

(2) through a skill test, that he can successfully perform the following maneuvers demonstrated at the aircraft's maximum certified take-off weight, or the maximum weight established for the special purpose load, whichever is greater:

- (i) short-field and soft-field take-offs in respect of aeroplanes and gyroplanes;
- (ii) approaches to the working area;
- (iii) flare-outs;
- (iv) swath runs;
- (v) pull-ups and turnarounds; and
- (vi) rapid deceleration in helicopters only.

6. Application for Certificate.

A person wishing to apply for a certificate under this BCAR shall



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(a) apply to the Director in the prescribed form; and

(b) pay the prescribed fees.

7. Certification Requirements.

(a) Except as provided in paragraph (b), where the Director is satisfied that an applicant for a certificate meets the requirements of this BCAR he may issue the applicant with a certificate.

(b) An applicant who applies for a certificate that contains a prohibition against the dispensing of economic poisons shall be exempted from the requirement of demonstrating knowledge that is specific to economic poisons.

(c) An agricultural aircraft operator before conducting operations under these BCARs shall ensure that his aircraft is

(1) issued with an airworthiness certificate under BCAR 21; and

(2) equipped for agricultural operation.

8. Duration of a Certificate.

A certificate issued by the Director shall be valid for a period of 12 months from the date of issue unless otherwise surrendered, suspended, or revoked.

9. Amendment of a Certificate.

(a) A certificate may be amended

(1) by the Director on his own initiative, pursuant to applicable regulations; or

(2) upon the application by a person who holds a certificate.

(b) An application to amend a certificate referred to in paragraph (a)(2) shall be

(1) made in the form and manner prescribed by the Director; and

(2) filed at least 15 days before the date the amendment is due to become effective, unless the Director specifies otherwise.

(c) The Director may grant a request to amend a certificate, where he is satisfied

that safety in air commerce and the public interest is secured.

(d) Where an application to amend a certificate is refused, the applicant may within 30 days thereafter petition the Director to reconsider his decision.

10. Certificate to be Carried.

(a) A person holding a certificate shall keep such certificate at the base from which he conducts operation, and shall make it available for inspection on the request of the Director.

(b) A person shall not conduct an agricultural aircraft operation in an aircraft unless he has a copy of the certificate on board such aircraft.

(c) An aircraft registration and certificate of airworthiness issued by the Director, may not be carried on board an aircraft that is involved in agricultural aircraft operations where such registration and certificate of airworthiness are available for inspection at the base from which operations are conducted.

11. General operating rules.

(a) Except as provided in paragraph (b), regulations 12 to 30 prescribe the rules that apply to persons and aircraft used in agricultural aircraft operations conducted under this BCAR.

(b) Operating rules referred to in regulations 9 to 18 apply to a person holding a rotorcraft external-load certificate and conducting agricultural aircraft operations involving only the dispensing of water on forest fires by rotorcraft external-load means.

12. Dispensing of material or substance from aircraft.

No person shall dispense, or cause to be dispensed, any material or substance from an aircraft in any manner that would create a



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hazard to persons, animals or property on the ground.

13. Dispensing of economic poison.

(a) No person shall dispense, or cause to be dispensed, any economic poison unless such economic poison is registered with the Pesticide Control Board.

(b) No person shall dispense, or cause to be dispensed, any economic poison that is registered with the Pesticide Control Board

(1) for a use other than that for which it is registered;

(2) contrary to any safety instructions or use limitations on its label; or

(3) in violation of any written law.

(c) Notwithstanding paragraph (a) a person may dispense economic poisons registered or unregistered for experimental purposes under

(1) the supervision of an agency in Belize, authorised by law to conduct research in the field of economic poisons; or

(2) a permit issued by the Director under advice of the Pesticide Control Board.

14. Qualification of personnel.

(a) No person shall conduct agricultural aircraft operations on an aircraft unless he informs all persons employed by him to conduct such agricultural aircraft operations of their respective duties and responsibilities.

(b) No person shall supervise an agricultural aircraft operation unless he meets the knowledge and skill requirements under this BCAR.

(c) No person shall act as pilot in command of an aircraft involved in agricultural aircraft operations under this BCAR unless he

(1) holds a current certificate and rating prescribed under this BCAR as appropriate to the type of operation conducted; or

(2) demonstrates to the satisfaction of the person holding a certificate and conducting agricultural aircraft operations, or to a supervisor designated by such person, that

he possesses the knowledge and skill requirements under regulation 5(b).

15. Controlled airspace designated for an airport or under visual flight rules.

(a) No person shall conduct agricultural operations on an aircraft

(1) within the lateral boundaries of the surface area of Class D airspace designated for an airport except for flights to and from a dispensing area; and

(2) in weather conditions below visual flight rules minima within the lateral boundaries of a Class E airspace area that extends upward from the surface, without authorisation from the air traffic control facility having jurisdiction over that area.

16. General requirements for operations over congested areas.

(a) A person may conduct agricultural aircraft operations or cause such operations to be conducted over a congested area at required altitudes if such agricultural aircraft operations are conducted

(1) without jeopardizing the safety of persons and property on the ground;

(2) after a plan for an agricultural aircraft operation is submitted and approved by the Director; and

(3) in the manner prescribed by the Director.

(b) A plan for an agricultural aircraft operation referred to in paragraph (1)(b) shall include

(1) obstructions to flight;

(2) emergency landing capabilities of the aircraft to be used; and

(3) any necessary co-ordination with air traffic control facilities.

(c) The rules governing agricultural aircraft operations over congested areas in single-engine and multi-engine aircraft are set out in the following standards.

(1) A certificate holder shall ensure that all single engine aircraft while in a congested area operate—



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(i) except for helicopters, during take offs and turnarounds, with no load;
(ii) not below the altitudes prescribed in BCAR 02 except during the actual dispensing operation, including the approaches and departures necessary for that operation;
(iii) during the actual dispensing operation, including the approaches and departures for that operation, not below the altitudes prescribed in BCAR 02 unless it is in an area and at such an altitude that the aircraft can make an emergency landing without endangering persons or property on the surface.

(2) A certificate holder shall ensure that all multi-engine aircraft while in a congested area operate—

(i) during take-off, under conditions that will allow the aeroplane to be brought to a safe stop within the effective length of the runway from any point on take-off up to the time of attaining, with all engines operating at normal take-off power, 105 per cent of the minimum control speed with the critical engine inoperative in the take-off configuration or 115 per cent of the poweroff stall speed in the take-off configuration, whichever is greater;

Note: Assume still-air conditions, and no correction for any uphill gradient of one percent or less when the percentage is measured as the difference between elevation at the end points of the runway divided by the total length. For uphill gradients greater than one per cent, the effective take-off length of the runway is reduced 20 per cent for each one per cent grade.

(ii) at a weight no greater than the weight that, with the critical engine inoperative, would permit a rate of climb of at least 50 feet per minute at an altitude of at least 1,000 feet above the elevation of the highest ground or obstruction within the area to be worked or at an altitude of 5,000 feet, whichever is higher. Assume that the

propeller of the inoperative engine is in the minimum drag position; that the wing flaps and landing gear are in the most favourable positions; and that the remaining engine or engines are operating at the maximum continuous power available; and
(iii) below the altitudes prescribed in BCAR 02 except during the actual dispensing operation, including the approaches, departures, and turnarounds necessary for that operation.

17. Pilot and aircraft operations over congested areas.

A pilot shall not conduct agricultural aircraft operations over congested areas unless he has at least

(a) 25 hours of pilot in command flight time in the make and basic model of aircraft, including at least 10 hours within the preceding 12 months; and

(b) 100 hours of flight experience as a pilot in command dispensing agricultural materials or chemicals.

18. Jettisoning of agricultural material.

(a) All aircraft except for helicopters, shall be capable of jettisoning at least one-half of the maximum authorised load of agricultural material of the aircraft within 45 seconds.

(b) Where an aircraft is equipped to release the tank or hopper as a unit, there shall be a means to prevent inadvertent release by the pilot or other crew member.

19. Records and reports.

(a) A person holding a certificate shall maintain and keep current, at the home base where his operations are conducted, the following records:

(1) the name and address of each person for whom agricultural aircraft services are provided;

(2) the date the services were provided;

(3) the name and quantity of the material dispensed for each operation conducted; and



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(4) the name, address, and certificate number of each pilot employed in the agricultural aircraft operations, and the date that pilot met the knowledge and skill requirements under this BCAR.

(b) The records requirement under this BCAR shall be kept for at least 12 months.

20. New address of agricultural aircraft operator.

A person holding a certificate shall notify the Director in writing in advance of any change in the address of the home base where he conducts operations.

PART III

Helicopter External-Load

21. Helicopter External-Load

(a) This Part prescribes

(1) the certification and airworthiness requirements for rotorcraft used in external load operations; and

(2) the operating and certification requirements governing the conduct of rotorcraft external load operations in Belize.

(b) The certification requirements under this BCAR shall not apply to

(1) rotorcraft manufacturers when developing external load attaching means;

(2) operations conducted by a person demonstrating compliance for the issuance of an authorization under this BCAR;

(3) training flights conducted in preparation for the demonstration of compliance with this BCAR; or

(4) the conduct of operations by the Government of Belize utilizing a public aircraft.

(c) 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.

22. Rotorcraft external load operator certificate.

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(a) For the purpose of this BCAR "certificate" means a rotor external load operator certificate.

(b) Subject to the following note, a person shall not conduct rotorcraft external-load operations without an authorization or in violation of the terms of such certificate issued by the Director.

- Note A person holding a rotorcraft external-load operator's certificate under this BCAR may conduct an agricultural aircraft operation involving the dispensing of water on forest fires by rotorcraft external-load means.

23. Application for renewal of a rotorcraft external-load operator's authorization.

A person wishing to apply for a certificate or a renewal of a certificate under this BCAR shall apply to the Director using BDCA Form 1010.

24. Personnel requirements for an authorization.

(a) An applicant referred to in item 23 for a certificate shall hold, or have available the services of at least one person who holds a current

(1) commercial pilot license; or

(2) airline transport pilot license, with a rating appropriate for the rotorcraft to be used.

(b) An applicant referred to in item 24 shall designate one person or any other suitably qualified person for rotorcraft external load operations.

(c) 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.

(d) A person selected as chief pilot and assistant chief pilot shall be acceptable to the Director and shall hold a current

(1) commercial pilot license; or



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(2) airline transport pilot certificate, with a rating appropriate for the rotorcraft to be used.

(e) A person holding an authorization shall report any change in designation of the chief pilot or assistant chief pilot immediately to the Director.

(f) 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 30 days of his designation, or where otherwise authorized by the Director.

25. Issue of an authorization.

Where the Director is satisfied that an applicant under item 24 meets the requirements under this BCAR, he may issue a certificate 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 BCAR.

26. Exclusive use of a rotorcraft.

An applicant referred to in item 23 shall have the exclusive use of at least one rotorcraft that

- (a) was type certified under, and meets the requirements for rotorcraft external load operations under the items of this BCAR which prescribe the requirements for rotorcraft external load operations;
- (b) complies with the certification provisions in this BCAR that apply to the rotorcraft load combinations for which an authorization is required; and
- (c) has a valid certificate of airworthiness.

27. Duration of an authorization.

A certificate issued by the Director shall be valid for a period of 12 months from the date of issue unless otherwise surrendered, suspended or revoked.

28. Amendment of an authorization.

(a) A person holding a certificate may apply to the Director to amend the certificate, by either adding or deleting a rotorcraft load combination authorization.

(b) An application referred to in paragraph (a) shall be accompanied by a new list of rotorcraft, the registration number of the rotorcraft, and the classes of rotorcraft load combinations for which authorization is sought.

29. Authorization to be kept or returned.

(a) A person conducting rotorcraft external load operation under this BCAR shall keep a copy of the certificate in each rotorcraft used in his operation.

(b) Where

- (1) a certificate is suspended or revoked by the Director; or
- (2) a certificate holder discontinues operations and does not resume operations within 2 years, he shall return the certificate to the Director.

30. Rotorcraft operating rules.

(a) No person shall conduct rotorcraft external-load operations contrary to the rotorcraft load combination flight manual prescribed in regulation 36.

(b) No person shall conduct rotorcraft external load operation unless

- (1) the rotorcraft complies with the requirements under regulation 26; and
- (2) the rotorcraft and rotorcraft load combination is authorized under the authorization.

(c) No person shall 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:

- (1) a determination that the weight of the rotorcraft or load combination and the



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location of its centre of gravity are within approved limits;

(2) that the external load is securely fastened;

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

(4) make an initial lift-off and verify that the rotorcraft is controlled satisfactorily;

(5) verify that directional control is adequate while hovering;

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

(7) 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

(8) increase the forward airspeed and determine an operational airspeed at which no hazardous oscillation or hazardous aerodynamic turbulence is encountered.

(d) Notwithstanding the provisions of BCAR 02, a person holding an authorization 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:

(1) the operator shall develop a plan for each complete operation and obtain approval for such operation from the Director which shall include

(i) an agreement with the appropriate agencies that he will exclude unauthorized persons from the area in which the operation is being 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 the landing of the rotorcraft, in an emergency without

jeopardizing the safety of persons or property on the surface.

(e) Notwithstanding the provisions of BCAR 02, and except as provided in regulation 35(a) (4), a person holding a certificate may conduct external load operations, including approaches, departures, and load positioning maneuvers 500 feet above the surface and closer than 500 feet to persons, vessels, vehicles, and structures, if the operations are conducted without jeopardizing the safety of persons or property on the ground.

(f) No person shall conduct rotorcraft external load operations under Instrument Flight Rules unless approval is obtained from the Director.

31. Restrictions on the carriage of persons.

(a) A person holding a certificate shall not allow any person to be carried on board a rotorcraft during external load operations unless such person

(1) is a flight crew member;

(2) is a flight crew member trainee;

(3) performs an essential function in connection with the rotorcraft external load operation; or

(4) is necessary to accomplish any work activity directly associated with that operation.

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

32. Crew member training, currency, and testing requirements.

(a) No person holding an authorization shall use or allow any other person to serve as a pilot in any helicopter external load operations unless that person



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(1) has successfully demonstrated to the Director the knowledge and skill requirements in relation to rotorcraft load combination; and

(2) has in his possession a letter of competency or an appropriate logbook entry indicating compliance with paragraph (1).

(b) No person holding an authorization shall use any other person to serve as a crew member or other operations personnel in Class D operations unless that person has within the preceding 12 months successfully completed either an approved initial or a recurrent training programmed.

(c) Notwithstanding paragraph (b), 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 months may not be required to undergo an approved or recurrent training programmed.

33. Flight characteristics requirements.

(a) An applicant for an authorization shall successfully demonstrate to the Director an operational flight check showing that the rotorcraft load combination has satisfactory flight characteristics, except where such flight check had been previously successfully demonstrated by the applicant.

(b) The external load weight including the external load attaching mechanism for which the applicant is required to demonstrate operational flight checks referred to in paragraph (a) shall have the maximum weight for which authorization is granted.

(c) For a Class A rotorcraft load combination, the operational flight check shall include the following maneuvers:

- (1) take-off and landing;
- (2) a demonstration of adequate directional control while hovering;
- (3) acceleration from a hover; and
- (4) horizontal flight at airspeeds up to the maximum airspeed for which authorization is requested.

(d) For Class B and Class D rotorcraft load combinations the operational flight check shall include the following maneuvers:

- (1) pickup of the external load;
- (2) a 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) a demonstration of an appropriate lifting device operation; and
- (6) maneuvering of the external load into release position and release, under probable flight operation conditions, by means of each of the quick-release controls installed on the rotorcraft.

(e) For a Class C rotorcraft load combination, used in wire stringing, cable-laying, or similar operations, the operational flight check shall consist of the relevant maneuvers, as prescribed in paragraph (d).

34. Structures and design of external load attaching means.

Where the Director is satisfied that the structure and design of the external load attaching means of a rotorcraft meets the requirements under this circular, he may approve

- (a) the external load attaching means;
- (b) a quick release device; and
- (c) the weight and centre of gravity for
 - (1) the total weight of the rotorcraft load combination which shall not exceed the total weight approved for the rotorcraft during its type certification;
 - (2) all loading conditions, the location of the centre of gravity shall, be within the range established for the rotorcraft during its type certification; and
 - (3) 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.



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35. Operating limitations.

(a) In addition to the operating limitations in the approved rotorcraft flight manual required by regulation 36, and any other limitations the Director may prescribe, a person holding an authorization shall establish and set out in the Rotorcraft Load Combination Flight Manual for rotorcraft load combination operations the following limitations requirements:

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

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

- (1) 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;
- (2) the rotorcraft shall be equipped to facilitate direct radio intercommunication among required crew members;
- (3) the personnel-lifting device shall be approved by the Director; and
- (4) the lifting device shall have an emergency release requiring two distinct actions.

36. Rotorcraft load combination flight manual.

(a) An applicant for a certificate shall prepare and submit a rotorcraft load combination flight manual for approval by the Director which shall include

- (1) operating limitations, normal and emergency procedures, performance, and other information established under this BCAR;
- (2) the class of rotorcraft load combinations for which the airworthiness of the rotorcraft has been demonstrated in accordance with this BCAR;
- (3) any peculiarities discovered when operating particular rotorcraft load combinations;
- (4) precautionary advice regarding static electricity discharges for Class B, Class C, and Class D rotorcraft load combinations; and
- (5) any other information essential for the safe operation with external loads.

(b) A rotorcraft flight manual under this BCAR may not include the limitation on height or speed envelope data.

37. Requirements for markings and placards.

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

(b) The markings and placards referred to in paragraph (a) shall include a placard

- (1) 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
- (2) with markings, or instructions displayed next to the external load attaching means stating the maximum external load approved.

38. Airworthiness certificate.

A valid airworthiness certificate for each rotorcraft type listed by a registration number and attached to the certificate shall be displayed in the cockpit when the



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rotorcraft is being used in operations conducted under this circular.

**PART IV
Glider Towing**

39. Applicability of Part IV.

This Part applies to operations involving glider towing by aircraft.

40. Private pilot license with a category rating for towing aircraft.

No person shall act as a tow pilot for a glider unless he holds at least a private pilot license with a category rating for towing aircraft.

41. Requirements for aircraft involved in towing.

No person shall operate an aircraft that is towing a glider unless such aircraft is equipped with a tow hook and release control system that meet the applicable airworthiness standards.

42. Experience and training required for tow pilot.

(a) No person shall act as a tow pilot for a glider unless he has

(1) logged at least 100 hours of pilot in command time in the same aircraft category, class, and type if applicable, as the tow aircraft;

(2) received training and instructor endorsement in

(i) techniques and procedures essential to the safe towing of gliders, including airspeed limitations;

(ii) emergency procedures;

(iii) signals used; and

(iv) maximum angles of bank;

(3) except as provided in paragraph (b), completed and endorsed at least 3 flights as the sole manipulator of the controls of an aircraft towing a glider or simulating glider-towing flight procedures while accompanied by a pilot who meets the requirements of this

Regulation; and

(4) within the preceding 12 months

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- (i) made at least 3 actual glider tows; or
- (ii) made at least 3 flights as pilot in command of a glider towed by an aircraft.

(b) A person who before the coming into operation of this regulation made and logged 10 or more flights as pilot in command of an aircraft towing a glider in accordance with the authorisation of the Director need not comply with paragraph (3) or (4).

**PART V
Banner Towing**

43. Applicability of Part V.

This Part applies to operations involving the towing of banners or other signs, lit or unlit by aircraft.

44. Banner towing certificate or authorisation.

(a) No person shall conduct operations under this Part unless he has a banner towing certificate or equivalent authorisation issued by the Director.

(b) A person wishing to apply for a banner towing certificate shall

(1) apply to the Director in the prescribed form; and

(2) pay the prescribed fee.

(c) Where the Director is satisfied that an applicant satisfies the requirements under this Part, he may issue that person with the relevant certificate or authorisation referred to in paragraph (a).

(d) Notwithstanding paragraphs (a) and (c) a person who operates a helicopter under Part III of these Regulations may tow a banner using an external-load attaching means without a banner towing certificate where that person has at least a Class B authorisation on his operating certificate.

45. Banner towing requirements for aircraft.

(a) No person shall operate an aircraft that is towing a banner unless that aircraft is



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equipped with a tow hook and release control system that meet the applicable airworthiness standards.

(b) A pilot shall not conduct banner towing operations in a helicopter unless such helicopter has a means to prevent the banner from becoming entangled in its tail rotor during all phases of flight, including autorotations.

46. Banner tow operations experience and training requirements.

(a) A pilot shall not conduct non-commercial banner tow operations unless that person has a valid private pilot license and a minimum of 200 hours pilot in command flight time.

(b) A pilot shall not conduct banner tow operations for compensation or hire, without a commercial pilot license and at least a valid Class 2 medical certificate.

(c) A pilot engaged in banner tow operations shall demonstrate his competence to the Director by performing at least one pickup and drop off, of the maximum number of letters or panels that can be used.

(d) A demonstration referred to in paragraph (c) shall be observed from the ground to allow the inspector to evaluate the competence of any essential ground personnel as well as the flight operation.

47. Operating rules for banner tow operations.

(a) A banner tow operation shall be conducted

(1) in visual flight rules weather conditions; and

(2) between the designated hours of official sunrise and official sunset.

(b) A person shall not conduct banner tow operations

(1) over congested areas or open air assemblies of persons lower than 1 000 feet; or

(2) over congested areas or open air assemblies of persons lower than 1 000 feet; or

(3) lower than the minimum safe altitude requirements established in BCAR 02.

(c) Notwithstanding paragraph (a), a helicopter may be used in banner tow operations lower than the minimum prescribed altitude where such operations are conducted without jeopardizing the safety of persons or property on the ground.

(d) A person holding a certificate or equivalent authorisation under this Part shall not conduct banner towing operations, unless prior approval is obtained from the airport operator.

(e) When conducting banner tow operation at an airport

(1) with a control tower, the operator shall notify the personnel at the control tower of the time of the banner tow operation;

(2) within close proximity to an uncontrolled airport, the operator shall notify the appropriate airport personnel of the banner towing operations.

(f) No person other than crew members directly involved in conducting banner tow operations shall be carried on board the aircraft involved in towing a banner.

(g) When conducting banner tow operations above congested areas, the pilot of the aircraft shall at all times exercise due care to minimize the risk of damage to persons or property on the ground in the event that the release of banner or tow rope becomes necessary.

(h) Where a banner tow operation is completed the tow-rope shall be dropped in a pre-designated area at least 500 feet from persons, buildings, parked automobiles, and aircraft.

(i) Where a tow plane lands with the tow-rope attached, the pilot of the aircraft shall at all times exercise due care to avoid trailing



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the tow-rope and endangering other aircraft, persons or property.

(j) A pilot conducting banner tow operations shall have on board the aircraft a current copy of such banner towing certificate or equivalent authorisation issued by the Director.

PART VI

Television and Movie Operations

48. Applicability of Part VI.

This Part applies to operations involving movie filming, appearance in flight in movies, and airborne direction or production of such filming when those operations are conducted as part of a business enterprise or for compensation or hire.

49. Aerial television and movie certificate or authorisation

(a) For the purpose of this Part "Certificate" means an aerial television and movie certificate.

(b) No person shall conduct operations under this Part unless that person holds a certificate or equivalent authorisation issued by the Director.

(c) A person wishing to apply for a certificate shall

- (1) apply to the Director in the prescribed form; and
- (2) pay the prescribed fee.

(d) Where the Director is satisfied that a person meets the requirement under this Part, he may issue a certificate or authorisation under this Part.

50. Aircraft requirements for a certificate.

An aircraft shall not be used in motion picture and television filming operations, in the experimental category unless the aircraft has a certificate of airworthiness issued for the purpose of exhibition.

51. Television and movie operations on aircraft.

A pilot shall not conduct television and movie operations on an aircraft unless he has

- (a) a commercial pilot license with ratings appropriate to the category and class of aircraft to be used under the terms of the waiver;
- (b) at least 500 hours as pilot in command;
- (c) a minimum of 100 hours, in the category and class of aircraft to be used;
- (d) a minimum of 5 hours in the make and model of aircraft to be used under the waiver;
- (e) a statement of aerobatics competency for the operations to be performed if the pilot intends to perform aerobatics below 1 500 feet above ground level.

52. Waiver requirements.

(a) An applicant referred to in regulation 49 may apply for a waiver of the requirements of these Regulations where filming sequences require an aircraft to be flown

- (1) in aerobatic flight below 1 500 feet above ground level;
- (2) over a congested area; or
- (3) in controlled airspace.

(b) When conducting any filming operation requiring a waiver, the person holding the certificate shall ensure that all reasonable efforts are made to confine spectators to designated areas.

(c) Where reasonable efforts have been taken to prevent unauthorised access to the airspace where maneuvers are being performed and unauthorised persons or vehicles enter the airspace where maneuvers are being performed during the filming production event, reasonable efforts shall be made to remove such unauthorised persons or vehicles.

(d) A person holding a certificate or waiver, shall before conducting filming operations, provide the Director with a schedule of events that lists the



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(1) identification of the aircraft; and
(2) performers in the sequence of their appearance.

(e) Where maneuvers are added or time changes are made to the schedule of events such additions and changes shall be approved by the Director.

(f) A person holding a certificate or waiver under this Part shall develop and have approved by the Director a motion picture and television flight operations manual.

53. Contents of a motion picture and television flight operations manual.

A motion picture and television flight operations manual referred to in regulation 52 shall contain:

- (a) the business name of the applicant whether a company or organisation;
- (b) address and telephone number of applicant;
- (c) a list of pilots to be employed during the filming operations including the number on the pilot license, grade and class and date of medical certificates;
- (d) a list of the make and model of aircraft to be used in the filming operations;
- (e) the distribution and revision procedures for the manual to ensure that all manuals are kept current;
- (f) the procedures to ensure that no person, except those persons consenting to be involved and necessary for the filming production are allowed within 500 feet of the filming production area;
- (g) the area of operation to be used during the term of the waiver;
- (h) the procedures for the submission within 3 days of scheduled filming, the written plan of activities to the Director containing
 - (1) the dates and times for all flights;
 - (2) the name and telephone number of the person responsible for the filming production event;
 - (3) the make and model of aircraft to be used and type of certificate of airworthiness, including category;

(4) the names of pilots involved in the filming production event;

(5) a statement that permission has been obtained from property owners or local officials to conduct the filming production operations;

(6) the person in whose favor the waiver was granted or their personal representative; and

(7) a general outline or summary of the production schedule, including maps or diagrams of the specific filming location, where necessary;

(i) the requirements and procedures that will be used to obtain permission from property owners or any public authority such as the Police, or the Fire Service, as appropriate, for the conduct of all filming operations when using the waiver;

(j) the method of security that will be used to exclude all persons not directly involved with the filming operation from the location;

(k) the mechanism that will be used to stop film operations when unauthorised persons, vehicles, or aircraft enter the operations area, or for any other reason, in the interest of safety film;

(l) the procedures to be used when briefing personnel of the risks involved, emergency procedures, and safeguards to be followed during the film production operations;

(m) the procedures to ensure that the required inspections will be conducted;

(n) the procedures to provide communications capability with all participants during the actual operation and filming; and

(o) the procedures for notification and reporting of accidents.

**PART VII
*Sightseeing flights***

54. Applicability of Part VII.

This Part shall apply to operations involving the carriage of persons for viewing natural formations or manmade objects on the ground when filming operations are conducted as part of a business enterprise or for compensation or hire.



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55. Sightseeing flight certificate or authorisation

(a) No person shall conduct operations under this Part unless that person has a sightseeing flight certificate or equivalent authorization issued by the Director.

(b) A person wishing to apply for a sightseeing flight certificate shall

(1) apply to the Director in the prescribed form; and

(2) pay the prescribed fee.

(c) Where the Director is satisfied that a person meets the requirement under this Part he may issue the sightseeing certificate or equivalent qualification to each applicant who qualifies for it under the provisions of this Part.

(c) An air operator under this Part shall hold an air operator certificate issued under the provisions of BCAR OPS 1 or BCAR OPS 3.

56. Experience and training requirements of air operator certification.

The experience and training requirements under BCAR OPS 1 or BCAR OPS 3 shall apply to all operations under this Part.

57. Operating rules for sightseeing flight certificate or authorisation.

The operating rules requirements under the BCAR OPS 1 or BCAR OPS 3 shall apply to all operations under this Part.

**PART VIII
Fish Spotting**

58. Applicability of Part VIII.

This Part shall apply to operations involving location, tracking and reporting of fish and fish schools, when those operations are conducted as part of a business enterprise or for compensation or hire.

59. Fish spotting certificate or authorisation.

(a) No person shall conduct operations under this Part unless that person has a fish spotting certificate or equivalent authorisation issued by the Director.

(b) A person wishing to apply for a fish spotting certificate shall

(1) apply to the Director in the prescribed form; and

(2) pay the prescribed fee.

(c) Where the Director is satisfied that a person meets the requirements under this Part he may issue a fish spotting certificate or equivalent authorisation to each applicant who qualifies for it under the provisions of this Part.

60. Operating rules for fish spotting certificate or authorisation.

(a) An operator under this Part shall not conduct operations that endanger persons or property on the ground nor aircraft in flight.

(b) The minimum cloud clearance requirements and minimum altitude requirements under the BCAR OPS 1 or BCAR OPS 3 shall not apply to such persons as the Director may approve, and the Director may prescribe different minima cloud clearance and altitude clearance as part of an authorisation under this Part.

**PART IX
Traffic Reporting**

61. Applicability of Part IX.

This Part shall apply to operations involving the observation of and reporting on vehicular traffic conditions on the highways and streets when conducted by an airman in an aircraft in flight not designated as solely for public use.

62. Vehicular traffic reporting certificate or authorisation.

(a) A person conducting operations under this Part shall have a vehicular traffic



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reporting certificate or equivalent authorisation issued by the Director.

(b) A person wishing to apply for a vehicular traffic reporting certificate shall

(1) apply to the Director in the prescribed form; and

(2) pay the prescribed fee.

(c) Where the Director is satisfied that a person satisfies all the requirements under this Part he may issue a vehicular traffic reporting certificate or equivalent authorisation.

(d) An operator under this Part shall not conduct operations to endanger persons or property on the ground or aircraft in flight.

(e) The minimum cloud clearance requirements and minimum altitude requirements under BCAR OPS 1 or BCAR OPS 3 shall not apply to such persons as the Director may approve, and the Director may prescribe different minima cloud clearance and altitude clearance as part of an authorisation under this Part.