

CIVIL AVIATION ACT
(Act No. 11 of 2011)

CIVIL AVIATION (AERIAL WORK) REGULATIONS, 2012
(Published on 23rd March, 2012)

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IN EXERCISE of the powers conferred on the Minister of Transport and Communications by section 89 of the Civil Aviation Authority Act, and on the recommendation of the Authority, the following Regulations are hereby made —

PART I — *Preliminary*

- Citation **1.** These Regulations may be cited as the Civil Aviation (Aerial Work) Regulations, 2012.
- Interpretation **2.** In these Regulations, unless the context otherwise requires —
- “acrobatic flight” means manoeuvres intentionally performed by an aircraft involving an abrupt change in attitude, abnormal attitude or abnormal variation in speed;
- “acrobatic manoeuvre” includes a loop, spin, roll, bunt, stall turn, inverted flying and any other similar manoeuvre;

“aerial work” means an aircraft operation in which an aircraft is used for specialised services such as agriculture, photography, sports, surveying, observation, patrol, advertising, construction, search and rescue, salvage, fire-fighting, wildlife operations and any other related activity;

“agrochemical” means any substance intended for —

- (a) the prevention, destruction, repulsion, attraction of any undesirable life forms injurious to plant and animal growth; or
- (b) the promotion or inhibition of plant growth;

“authorised officer” means any person authorised by the Authority, in writing either generally or in relation to a particular case;

“certificate” means a certificate for an aerial work operation issued under regulation 6;

“congested area” means an area that is used for residential, industrial, commercial or recreational purposes;

“controlled airspace” means airspace that has been notified as class A, or class C airspace;

“fish spotting” means the location, tracking and the reporting of the location of fish and fish schools;

“game spotting” means the location, tracking and the reporting of the location of game;

“glider” means a non power driven heavier than air aircraft deriving its lift in flight from aerodynamic reaction on surfaces which remain fixed under given conditions of flight;

“motor vehicle competition” means competitive vehicle tracking and the reporting of the location of motor vehicles during a competition; and

“night” means the time between half an hour after sunset and half an hour before sunrise, sunset and sunrise being determined at surface level.

PART II – *Certificates*

3. A person shall not conduct any aerial work unless he or she is issued an aerial work operator certificate in accordance with these Regulations.

Aerial work
operator
certificate

4. (1) A person operating a foreign registered aircraft shall not conduct any aerial work unless he or she is authorised to do so by the Authority.

Authorisation
for foreign
registered
aircraft

(2) A person who wishes to obtain an authorisation to conduct any aerial work under subregulation (1) shall make an application in writing, to the Authority at least one month before the commencement of the operation that it is applied for.

(3) Notwithstanding the provisions of subregulation (2), a person may, in case of emergency and with the consent of the Authority, apply in writing, to the Authority, within a period shorter than one month.

(4) An application under this regulation shall be accompanied by —

- (a) a tax clearance certificate;
- (b) such fees as may be prescribed under Schedule 2;
- (c) certificate of airworthiness;
- (d) certificate of registration;
- (e) crew licence(s);
- (f) authorisation from State of operator to conduct aerial work; and
- (g) any other document as may be required by the Authority.

(5) An authorisation issued under subregulation (1) shall be in Form A set out in Schedule 1 and shall be valid for a period prescribed by the Authority at the time of issuance.

Application
for certificate

5. (1) A person who wishes to apply for an aerial work operator certificate shall make an application to the Authority in Form B set out in Schedule 1 to these Regulations.

(2) Subject to the provisions of these Regulations, a person who makes an application for an aerial work operator certificate shall —

- (a) hold at least a valid private pilot licence or, have available the services of at least one person who holds a valid private pilot licence, commercial pilot licence or an airline transport pilot licence and be rated on the aircraft type of operation that the application relates to;
- (b) attach a copy of the aerial work manual containing instructions and information as may be necessary for the safe operation of the aircraft;
- (c) attach a copy of a certificate of airworthiness or permit to fly issued by the Authority or a certificate of airworthiness issued in another State; and
- (d) where necessary, an authorisation or permit from a competent authority.

(3) An application under subregulation (1) shall be accompanied by a fee specified in Schedule 2 to these Regulations.

(4) A person who makes an application for a certificate shall have available a main operations base acceptable to the Authority.

Issuance of
certificate

6. (1) The Authority may issue an aerial work operator certificate subject to such conditions as may be contained in the certificate where an applicant meets the requirements set out in these Regulations and upon payment of a fee specified in Schedule 2 to these Regulations.

(2) An aerial work operator certificate issued under this regulation shall be in Form C set out in Schedule 1 to these Regulations.

(3) The Authority may refuse to issue an aerial work operator certificate where an application under regulation 5 does not meet the requirements of these Regulations in which case, the Authority shall inform the applicant in writing, of the reasons for such refusal.

Duration and
renewal of
certificate

7. (1) A certificate issued under these Regulations shall be valid for 12 months from the date of issue and may be subject to renewal at the end of such period.

(2) A holder of aerial work operator certificate who wishes to renew, may within six months before the expiry of the certificate, apply in writing to the Authority for the renewal of that certificate.

(3) The application for renewal under subregulation (2) shall be accompanied by a fee specified in Schedule 2 to these Regulations.

(4) The Authority may, upon receipt of the application for renewal, being satisfied that the applicant qualifies to continue holding the certificate, and upon payment of a fee specified in Schedule 2 to these Regulations, renew the certificate for a further period of 12 months.

Amendment
of certificate

8. (1) An application to amend a certificate shall be made to the Authority in Form B set out in Schedule 1 to these Regulations and shall be accompanied by a fee specified in Schedule 2 to these Regulations and whilst the application is being considered the applicant shall continue operating in accordance with the terms and conditions of the existing certificate.

(2) The Authority may refuse to amend a certificate where the proposed amendment does not meet the requirements of these Regulations, in which case the Authority shall inform the applicant in writing, of the reasons for such refusal.

(3) The applicant may, after receiving the refusal to amend the certificate and having complied with the requirements stipulated by the Authority resubmit the application to amend the certificate.

9. (1) A person may apply to the Authority for a replacement of a certificate or authorisation issued under these Regulations if the certificate or authorisation is lost or destroyed.

Replacement of certificate

(2) An application under subregulation (1) shall be accompanied by a fee specified in Schedule 2 to these Regulations.

(3) The Authority shall, where it is satisfied that an application meets the requirements under this regulation, replace a certificate.

10. (1) A person issued with a certificate or authorisation by the Authority under these Regulations shall have the certificate or authorisation in his or her physical possession when conducting aerial work.

Possession of certificate or authorisation

11. (1) A person who holds a certificate or authorisation required under these Regulations shall present it for inspection upon a request by the Authority or any person authorised by the Authority.

Inspection of certificate, etc.

(2) The Authority may request the holder of a certificate or authorisation, to produce the certificate or authorisation for examination at such time and place as the authorised officer making the request may specify.

(3) A person who, without reasonable excuse fails to comply with the requirements of this regulation commits an offence and is liable to a fine not exceeding P5 000 000, or to imprisonment for a term not exceeding ten years, or to both.

12. (1) The Authority may suspend provisionally, pending further investigation, any certificate or authorisation issued under these Regulations.

Suspension and revocation of certificate

(2) The Authority may, on the completion of an investigation, suspend any certificate or authorisation issued under these Regulations for a period specified in the suspension notice.

(3) The Authority may revoke a certificate or authorisation issued under these Regulations where —

(a) on completion of an investigation under subregulation (1) it is satisfied that there is sufficient grounds to warrant that the certificate or authorisation be revoked; or

(b) a holder of a certificate contravenes the provisions of regulation 11 (1) (c) and (d).

(4) A holder or any person having possession or custody of any certificate or authorisation which has been revoked or suspended under these Regulations shall surrender it to the Authority within two days from the date of revocation or suspension.

PART III — *Agricultural Operations*

Agricultural
operations

13. (1) Where an application under regulation 5 relates to agricultural operations, the person who makes the application shall prove to the satisfaction of the Authority that he or she possesses —

- (a) knowledge of —
 - (i) the steps to be taken before starting operations, including a survey of the area to be worked on,
 - (ii) the safe handling, storage and disposal of agrochemicals and the proper disposal of used containers of the agrochemicals,
 - (iii) the general effects of agrochemicals on plants, animals and persons,
 - (iv) the primary symptoms of persons poisoned by agrochemicals, the appropriate emergency measures to be taken and the location of the nearest appropriate health facility,
 - (v) the performance capabilities and operating limitations of the aircraft to be used, and
 - (vi) safe flight and application procedures; and
- (b) skills in the following manoeuvres demonstrated at the aircraft's maximum certified take off mass or the maximum weight established for the special purpose load whichever is greater, during —
 - (i) approaches to the working area,
 - (ii) short field and soft field take-offs where the application relates to the use of aeroplanes and gyroplanes,
 - (iii) flare outs,
 - (iv) swath runs,
 - (v) pull-ups and turnarounds, and
 - (vi) rapid decelerations where the application relates to the use of a helicopter.

(2) A person who makes an application in accordance with subregulation (1) and does not intend to dispense agrochemicals shall not be required to demonstrate knowledge relating to agrochemicals.

Private
agricultural
operations

14. A person who is issued an aerial work operator certificate for private agricultural operations shall not conduct an agricultural operation —

- (a) for compensation or hire;
- (b) over a congested area; or
- (c) over any property unless the person is the owner or lessee of the property, or has ownership or other property interest in the crop located on that property.

Dispensing of
agrochemical

15. (1) A person shall not dispense, or cause to be dispensed from an aircraft, any agrochemical in a manner that creates a hazard to persons or property on the surface.

(2) A person shall not dispense, or cause to be dispensed from an aircraft any agrochemical —

- (a) provided for under the Agrochemicals Act —
 - (i) for use other than that for which it is registered for, and
 - (ii) contrary to any safety instructions or limitations on its label; or
 - (iii) that is prohibited under any laws of Botswana.

Cap. 35:09

(3) Subregulation (2) shall not apply to any person dispensing agrochemicals for experimental purposes or research purposes under the supervision of an agency authorised by law to conduct research in the field of agrochemical.

16. Except for flights to or from a dispensing area, a person shall not operate an aircraft within the lateral boundaries of the surface area of class D airspace designated for an airport unless he or she is authorized to do so by the control tower having jurisdiction over that area.

Operations in
controlled
airspace

17. (1) A person shall not operate an aircraft over a congested area at altitudes required for the proper accomplishment of an agricultural aircraft operation unless —

Operations
over
congested
areas —
pilots and
aircraft

- (a) that operation is conducted with the maximum safety to persons and property on the surface; and
- (b) he or she has obtained prior written approval from the Authority and other relevant authorities having jurisdiction over that area.

(2) A plan for each proposed operation shall be submitted to, and approved by the Authority and it shall include —

- (a) consideration of obstructions to flight;
- (b) the emergency landing capabilities of the aircraft to be used; and
- (c) any necessary coordination with air traffic control.

(3) A person operating a loaded single engine aircraft other than a helicopter shall not take off or perform turnaround manoeuvres with such aircraft over a congested area.

(4) A person shall not operate an aircraft over a congested area below the altitudes prescribed by the Authority except during the actual dispensing operation, and the approaches and departures necessary for that operation.

(5) Subregulation (4) shall not apply where the aircraft is operated in a pattern and at such an altitude that the aircraft can land, in an emergency, without endangering persons or property on the surface.

(6) A person operating a multi-engine aircraft shall not take-off a multi-engine aircraft over a congested area except under conditions that will allow the aircraft to be brought to a safe stop within the length of the runway from any point on take-off up to the time attaining, with all engines operating at normal take-off power, 105 percent of the minimum control speed with the critical engine inoperative in the take-off configuration or 115 percent of the power-off stall speed in the take-off configuration, whichever is greater, as shown by the accelerate stop distance data.

(7) Subregulation (6) shall not apply where the take-off data is based on still-air conditions, and no correction is made 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 and for uphill gradients greater than one percent, the effective take-off length of the runway is reduced 20 percent for each one-percent grade.

(8) A person shall not operate a multi-engine aircraft at a weight 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 with the area to be worked on or at an altitude of 5,000 feet, whichever is higher, provided that —

- (a) the propeller of the inoperative engine is in the minimum drag position;
- (b) the wing flaps and landing gear are in the most favorable positions;
- (c) the remaining engine or engines are operating at the maximum continuous power available.

(9) (a) A person shall not act as a pilot in command for agricultural operations unless the person has at least —

- (i) 25 hours of pilot in command flight time in the make and basic model of the aircraft to be used during agricultural air operations including at least 10 hours within the preceding 12 months; and
- (ii) 100 hours of flight experience as pilot in command in dispensing agricultural agrochemicals.

(b) Except for a helicopter, an aircraft used in agricultural operations shall be capable of jettisoning at least one half of the aircraft's maximum authorised load of agricultural material within 45 seconds and where the 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 crew.

Exemption

18. A person who complies with this Part and is issued an aerial work operator certificate for agricultural operations shall be exempt from holding a rotorcraft external load operator certificate when conducting an agricultural operation with a rotorcraft with external dispensing equipment.

Commercial
agricultural
operations
register

19. (1) A person who is issued an aerial work operator certificate for commercial agricultural operations shall maintain and keep a register, at the home base offices.

(2) The register shall contain the following particulars relating to each operation, the —

- (a) name and address of each person to whom agricultural air operation was provided;
- (b) date of the operation;
- (c) name and quantity of the agrochemical dispensed for each operation conducted; and
- (d) name, address and certificate number of each pilot who conducted the agricultural operations.

PART IV — *Rotorcraft External Load Operations*

Rotorcraft
external
load
operations

20. (1) This Part shall not apply to —

- (a) a rotorcraft manufacturer when developing external load attaching means; or
- (b) a rotorcraft load operations conducted by a person demonstrating compliance for the issuance of a certificate.

(2) For purposes of this Part, configurations for external loads carried by rotorcraft in relation to —

“class A” means an external load fixed to the rotorcraft, which cannot be jettisoned, and does not extend below the landing gear, used to transport cargo;

“class B” means load suspended from the rotorcraft, which can be jettisoned, and is transported free of land or water during rotorcraft operations;

“class C” means external load suspended from the rotorcraft, which can be jettisoned, but remains in contact with land or water during rotorcraft operations; and

“class D” means external load suspended from the rotorcraft for the carriage of persons.

(3) Where an application under regulation 5 relates to rotorcraft external load operations, a person who makes the application shall have the exclusive use of at least one rotorcraft which complies with the certificate provisions that apply to external load combinations.

(4) A person who makes an application for rotorcraft external load operations shall prove to the satisfaction of the Authority that he or she possesses —

- (a) the knowledge, where the application is for a class A rotorcraft load combination, of the —
 - (i) take off and landing procedures,
 - (ii) proper directional control while hovering,
 - (iii) horizontal flight at airspeed up to the maximum airspeed for which authorisation is requested,
 - (iv) appropriate rotorcraft load combination flight manual, and
 - (v) safe flight and application procedures; and
- (b) knowledge, where the application is for a class B and D rotorcraft load combination, of the —
 - (i) method of pick up of the external load,
 - (ii) proper directional control while hovering,
 - (iii) acceleration procedure from a hover,
 - (iv) horizontal flight procedure at operational airspeed, and
 - (v) appropriate lifting device operation where it is installed to hoist the external load.

(5) Where the operational flight check relates to a class C rotorcraft load combination used in wire stringing, cable laying, or similar operations, the operational flight checks shall be in accordance with subregulation (3) (b).

(6) The manual for a rotorcraft external load operations shall specify —

- (a) operating limitations;
- (b) normal and emergency procedures, performance, and other information required under this Part;
- (c) the class of rotorcraft load combinations for which the airworthiness of the rotorcraft has been demonstrated in accordance with this Part; and
- (d) in the information section of the rotorcraft load combination operating manual, —
 - (i) information on any peculiarities discovered when operating particular rotorcraft-load combinations,
 - (ii) precautionary advice regarding static electricity discharges for class B, class C and class D rotorcraft-load combinations, and
 - (iii) any other information essential for safe operation of external loads.

21. (1) Where a person operates a rotorcraft with an external load configuration that differs substantially from any rotorcraft that a person that has previously carried that type of rotorcraft, whether or not the rotorcraft load combination is of the same class, that person shall conduct the rotorcraft in a manner that will not endanger persons or property on the surface, the following flight operational checks as the Authority considers appropriate to —

- (a) determine whether the weight of the rotorcraft or load combination and the location of its centre of gravity are within approved limits;
- (b) determine whether the external load is securely fastened;
- (c) determine whether the external load does not interfere with devices provided for its emergency release;
- (d) enable initial lift off and verify that controllability is satisfactory;

Rotorcraft
operation
rules

- (e) verify that directional control is adequate while hovering;
- (f) verify that no attitude whether of the rotorcraft or of the external load is encountered in which the rotorcraft is uncontrollable or hazardous while accelerating into forward flight;
- (g) increase the forward airspeed and determine an operational airspeed at which no hazardous oscillation or hazardous aerodynamic turbulence is encountered; and
- (h) in forward flight, check for hazardous oscillation of the external load, but if the external load is not visible to the
- (i) pilot, other crew members or ground personnel may make the check and signal the pilot.

(2) A person issued an aerial work operator certificate for rotorcraft external load operations may conduct operations over a congested area if those operations are conducted without hazard to persons or property on the surface.

(3) An operator shall develop a plan for each complete operation which, where necessary, shall contain a detailed chart depicting the flight routes and altitudes.

(4) A rotorcraft flight shall be conducted at an altitude and on a route which will allow a jettison-able external load to be released and the rotorcraft landed in an emergency without hazard to persons and property on the surface.

(5) A person issued an aerial work operator certificate for rotorcraft external load operations may conduct external load operations including approaches, departures, and load positioning manoeuvres 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.

(6) A person issued an aerial work operations certificate for rotorcraft external-load operations shall not conduct rotorcraft external load operations under instrumental flight rules unless he or she is authorised to do so, in writing by the Authority.

Pilot and crew
requirements

22. (1) A person issued an aerial work operations certificate for rotorcraft external load operations shall not allow any person to serve as a pilot in rotorcraft external load operations unless such person —

- (a) has successfully demonstrated to the Authority the knowledge and skill required with respect to the rotorcraft-load combination in accordance with this Part; and
- (b) has in his or her possession, a certificate of competency issued by the Authority or an appropriate logbook entry indicating compliance with subregulation (1) (a).

(2) A person issued an aerial work operator certificate for rotorcraft external load operations shall not allow any person to serve as a crew member unless the crew member has within the preceding 12 months successfully completed an approved initial or recurrent training program.

(3) Notwithstanding the provisions of subregulation (2), a person who has performed a rotorcraft external load operation of the same class in an aircraft of the same type within the preceding 12 months shall not undergo recurrent training.

23. (1) A person issued an aerial work operator certificate for rotorcraft external load operations shall not allow a person to be carried in an aircraft while it is performing rotorcraft external load operations unless such a person —

Carriage of persons

- (a) is a crew member;
- (b) is a crew trainee who has completed within the preceding 12 months an approved initial or recurrent training program;
- (c) performs an essential function in connection with the rotorcraft external load operations or performs an activity that is associated with that operations.

(2) Notwithstanding the provisions of subsection (1), a pilot in command shall ensure that all persons aboard a rotorcraft are briefed before take-off on all procedure to be followed and equipment to be used during the rotorcraft external load operation.

24. (1) A person issued an aerial work operator certificate for rotorcraft external load operations shall not use an external load attaching means and a quick release device unless he or she is authorised to do so by the Authority.

Structure and design of rotorcraft

(2) The total weight of the rotorcraft load combination shall not exceed the total weight approved for the rotorcraft during its type certification.

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

(4) Where the rotorcraft is a class C rotorcraft 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.

25. A rotorcraft external load operator shall display markings and placards which shall not be easily erased, disfigured or obscured —

Markings and placards

- (a) in the cockpit or cabin, stating the class of a rotorcraft load combination and the occupancy limitation for which the rotorcraft has been approved; and
- (b) next to the external load attaching means stating the maximum external load approved.

PART V — *Glider Towing Operations*

26. (1) Where an application under regulation 5 relates to glider towing operations, a person who makes the application shall —

Glider towing operations

- (a) have an aircraft that is equipped with a tow hook and release control system that meets the applicable standards of airworthiness; and
- (b) ensure that the length of the combination of tow rope and glider in flight shall not exceed 150 metres.

(2) A person operating an aircraft in flight shall not tow a glider except in accordance with such conditions and requirements as the Authority has authorised.

27. (1) The pilot in command of an aircraft which is about to tow a glider shall satisfy himself or herself, before the towing aircraft takes off that —

Glider towing operations rules

- (a) the towline is in good condition and meets the requirements specified under this Part;
- (b) the combination of the towing aircraft and glider is capable of safely taking off, reaching and maintaining a safe height and making a safe landing at the place of intended destination;

- (c) signals have been agreed upon and communication established with persons suitably stationed so as to enable the glider to take off safely; and
 - (d) emergency signals have been agreed upon between the pilot in command of the towing aircraft and the pilot in command of the glider to be used, to indicate when the tow should immediately be released by the glider and to indicate when tow cannot be released by the pilot in command of the glider.
- (2) The glider shall be attached to the towing aircraft by means of the tow rope before the aircraft takes off.
- (3) A pilot in command shall satisfy himself or herself that —
- (a) the towing aircraft is equipped with a tow hook and a release control system of a kind and installed in a manner that is approved by the Authority;
 - (b) the towline used has a breaking strength of not less than 80 percent of the maximum certificated operating weight of the glider, except that the towline may have breaking strength of more than twice the maximum certificated operating weight of the glider if -
 - (i) a safety link is installed at the point of attachment of the towline to the glider with a breaking strength not less than 80 percent of the maximum certificated operating weight of the glider and not greater than twice this operating weight, or
 - (ii) a safety link is installed at the point of attachment of the towline to the towing aircraft with a breaking strength greater, but not more than 25 percent greater than that of the safety link at the towed glider end of the towline and not greater than twice the maximum certificated operating weight of the glider.
- (4) A pilot in command shall notify the control tower before conducting any towing operation within the lateral boundaries of the surface areas of class A, C or G airspace designated for an airport or before making each towing operation within such controlled airspace if required by air traffic control.
- (5) Where a control tower does not exist, the pilot in command shall notify the Authority before conducting any towing operations and the pilot of the towing aircraft and the pilot of the glider shall agree upon a general course of action, including take-off and release signals, airspeeds and emergency procedures for each pilot.
- (6) A pilot of an aircraft shall not intentionally release a towline, after the release of a glider, in a manner that endangers the life or property of other persons.

Glider towing
pilot
requirements

- 28.** (1) A person shall not act as a pilot in command for towing a glider unless that person —
- (a) has a logbook endorsement from an authorised instructor who certifies that the person received ground and flight training in towing a glider and is proficient in —
 - (b) the techniques and procedures essential to the safe towing of a glider, including airspeed limitations,
 - (ii) emergency procedures,
 - (iii) signals used, and
 - (iv) maximum angles of bank;

- (b) has logged at least three flights as the sole manipulator of the controls of an aircraft towing a glider while accompanied by a pilot who meets the requirements of this regulation or while simulating glider towing flight procedures;
- (c) has received a logbook endorsement from the pilot described in subregulation (2) certifying that the person has accomplished at least three flights in an aircraft while towing a glider or while simulating glider-towing flight procedures; and
- (d) within the preceding 12 months has —
 - (i) made at least three actual or simulated glider tows while accompanied by a qualified pilot who meets the requirements of this Part, or
 - (ii) made at least three flights as pilot in command of a glider towed by an aircraft.

(2) The pilot described in subregulation (1) (c) who endorses the logbook of a person seeking glider towing privileges shall —

- (a) meet the requirements of this regulation prior to endorsing the logbook of the person seeking glider towing privileges; and
- (b) log at least 10 flights as pilot in command of an aircraft while towing a glider.

29. (1) A person operating an aircraft in flight shall not, by means external to the aircraft, tow any article other than a glider or banner, tow or raise any person, animal or article, unless the certificate of airworthiness of the aircraft is valid and includes an express provision that it shall be used for that purpose.

Towing
articles, etc.

(2) A person shall not use an aircraft to launch or pick up tow lines, banners of similar articles other than at an aerodrome.

(3) A person shall not operate an aircraft in flight to tow any article, other than a glider, at night or when flight visibility is less than one mile.

(4) The length of the combination of a towing aircraft, towline and an article in a tow shall not exceed 150 meters.

(5) Nothing in this regulation shall —

- (a) prohibit the towing in a reasonable manner by an aircraft in flight of a radio aerial or any instrument which is being used for experimental purposes;
- (b) prohibit the picking or raising of any person, animal or article in an emergency or for the purpose of saving life;
- (c) apply to any aircraft while it is flying in accordance with the provisions of the special flight permit issued by the Authority; or
- (d) be taken to permit the towing or picking up of a glider otherwise than in accordance with this Part.

30. (1) A person shall not drop or permit to drop an article or animal, whether or not attached to a parachute, from an aircraft in flight so as to endanger persons or property.

Dropping
of articles

(2) Subregulation (1) shall not apply to the dropping of an article by or with the authority of the pilot in command of the aircraft where the dropping —

- (a) is for the purpose of saving life;
- (b) in case of emergency, is of fuel or other articles from the aircraft;
- (c) is of ballast in the form of fine sand or water;
- (d) is of articles solely for the purpose of navigating the aircraft in accordance with ordinary practice or in accordance with the provisions of these Regulations;

- (e) is at an aerodrome, in accordance with prescribed regulations of tow-ropes, banners or similar article towed by aircraft;
- (f) is for the purpose of agriculture, horticulture, forestry or public health or as a measure against weather conditions, surface icing or oil pollution or for training for the dropping of articles for any such purposes, if the articles are dropped with the permission of the Authority and in accordance with any condition subject to which that permission may have been given; and
- (g) is of wind drift indicators for the purpose of enabling parachute descents to be made if the wind indicators are dropped with the permission of the Authority and in accordance with any conditions subject to which that permission may have been given,

provided that the pilot seeks to avoid endangering persons or property.

(3) For purposes of this regulation, "dropping" includes projecting and lowering.

(4) Nothing in this regulation shall prohibit the lowering of any animal or article from a helicopter to the surface, if the certificate of airworthiness of the helicopter is valid and includes an express provision that it may be used for that purpose.

Dropping
of persons

31. (1) A person shall not drop, be dropped or be permitted to drop to the surface or jump from an aircraft flying over Botswana except in accordance with the terms of a parachuting permission granted by the Authority.

(2) Notwithstanding the provisions of subregulation (1), a person shall not drop, be dropped or be permitted to drop from an aircraft in flight so as to endanger persons or property on the surface.

(3) A person shall not use an aircraft for the purpose of dropping persons unless the aircraft has a certificate of airworthiness and a licence granted for that purpose.

(4) Nothing in this regulation shall --

- (a) apply to the descent of persons by parachute from an aircraft in an emergency;
- (b) prohibit the lowering of any person in an emergency or for the purpose of saving life; or
- (c) prohibit the lowering of any person from a helicopter to the surface if the certificate of airworthiness of the helicopter is valid and includes an express provision that it may be used for that purpose.

PART VI – *Banner Towing Operations*

Banner towing
operations

32. (1) Where an application under regulation 5 relates to banner towing operations the person who makes the application shall have an aircraft that is equipped with a tow hook and release control system that meet the applicable standards of airworthiness.

(2) A person shall not operate a helicopter that is towing a banner unless the helicopter has a means to prevent the banner from becoming entangled in the helicopter's tail rotor during all phases of flight, including auto rotations.

(3) A helicopter operating under the provisions of rotorcraft external load operations may tow a banner using an external load attaching means without authorisation from the Authority where the operator has a class B authorisation on the operating certificate.

33. A pilot engaged in banner towing operations shall —

- (a) demonstrate competence to the Authority by performing at least one pickup and drop of the maximum numbers of letters to be used by a certificate holder, which shall be observed from the ground to allow an inspector from the Authority to evaluate the competence of any essential ground personnel and the flight operations;
- (b) in case of a non-commercial operation, hold at least a valid private pilot licence and have a minimum of 200 hours pilot in command time; and
- (c) in case of a commercial operation, hold at least a commercial pilot licence and at least a valid second class medical certificate.

Banner
towing pilot
requirements

34. (1) A banner towing operation shall be conducted —

- (a) in visual flight rules weather conditions; and
- (b) between the hours of official sunrise and official sunset.

Banner
towing
operations
rules

(2) A person shall not conduct banner towing operations —

- (a) over a congested area or an open air assembly of persons at a height below 2,000 feet above the highest fixed object and within 600 metres of the aircraft; or
- (b) below the minimum safe altitude requirements.

(3) Where the banner towing operation takes place at an airport, the operator shall be required to obtain the written approval of the airport management to conduct such operations.

(4) Where the banner towing operation takes place at an airport with air traffic control, the operator shall inform the air traffic control of the time of the operations and obtain clearance for such operation.

(5) Where the banner towing operation is to be held in close proximity to an unmanned airport, the operator shall notify the appropriate airport officials in advance.

(6) An aircraft shall not carry any person other than essential crew when conducting a banner tow operation.

(7) Where a banner towing operation is conducted around a congested area, the pilot shall exercise due care such that, in the event of emergency the release of the banner or tow-rope, shall not endanger life or property on the surface.

(8) A pilot conducting a banner tow operation shall drop the tow-rope in a pre-designated area at least 500 feet from persons and property.

(9) Where a towing aircraft lands with a tow-rope attached, due care shall be exercised by the pilot to avoid trailing the tow rope and endangering other aircraft in the air, or persons and property.

(10) A pilot conducting a banner towing operation shall ensure that the operation is coordinated with other aviation operations at all times.

(11) The coordination referred to under subregulation (10) shall include —

- (a) communications relating to —
 - (i) air to air,
 - (ii) air to ground, and
 - (iii) coordination with air traffic control; and
- (b) the identification and depiction of air traffic flow for the pilots concerned.

(12) Where a banner towing operation is to be held, the operator shall, prior to the operations ensure that the aircraft conducting banner towing operations undergoes an airworthiness safety inspection.

PART VII – *Media, Operations etc.*

Television
operations

35. (1) This Part shall apply to operations involving movie filming, appearance in flight movies, aerial photography, aerial survey, airborne direction or production of such filming, when those operations are conducted as part of a business enterprise.

(2) For purposes of this Part, “movie” includes film, video and live broadcast in any format, and the preparation and rehearsal for such operations.

Television
operations
rules

36. (1) Where an application under regulation 5 relates to television operations, the applicant shall request for a waiver from the Authority when filming sequences which require an aircraft to be flown —

- (a) in acrobatic flight below 1,500 feet above ground level;
- (b) over a congested area; or
- (c) in a controlled airspace.

(2) A person who is issued with a waiver in terms of subregulation (1) shall provide a schedule that provides for the —

- (a) identification of the aircraft;
- (b) names of the performers in the sequence of their appearance; and
- (c) date and times when such operations will be undertaken.

(3) When conducting a filming operation requiring a waiver, the certificate holder shall ensure that all reasonable efforts are made to confine spectators to designated areas and if an unauthorised person or vehicle enters the airspace where manoeuvres are being performed during the filming operation efforts shall be made to remove such person or vehicle.

(4) A person shall not conduct television, movie, aerial photography or aerial survey operations unless the pilot has —

- (a) at least 500 hours as pilot in command;
- (b) a minimum of 100 hours in the category and class of the aircraft to be used; or
- (c) a minimum of five hours flying time in the make and model of the aircraft to be used.

(5) Where a pilot in a television, movie, aerial photography or aerial survey operations intends to perform acrobatic flights below 1,500 feet above ground level, he or she shall, prior to the operation furnish the Authority with proof of competence to perform the acrobatic manoeuvres in the aircraft to be used.

(6) An application for television operations shall include aerial photography and survey flight operations manual which shall contain —

- (a) the business name, address, facsimile number, email address and telephone number of the applicant;
- (b) the list of pilots to be used during the filming, aerial photography and survey including their pilot licence numbers, type of licence and date of medical certificate;
- (c) the list of aircraft to be used during the flight operations by make and model;
- (d) the procedures for revising the manual to ensure that such manual is kept up to date;
- (e) the procedures to ensure that a person shall not, except those persons consenting to be involved and necessary for the filming or aerial photography and survey be allowed within 500 feet of the filming production area;
- (f) the area that will be used during the duration of the certificate;
- (g) the procedures for the submission, within three days of scheduled filming or aerial photography and survey, of a written plan of activities to the Authority containing at least the following —

- (i) dates and times of all flights,
 - (ii) name and contact details of the person responsible for the filming or aerial photography and survey,
 - (iii) make and model of aircraft to be used and type of airworthiness certificate issued,
 - (iv) names of pilots involved in the filming or aerial photography and survey,
 - (v) a statement that permission has been obtained from property owners or any other person to conduct the filming or aerial photography and survey,
 - (vi) a general outline, or summary, of the production schedule, including maps or diagrams of the specific filming or aerial photography and survey location;
- (h) the requirements that are needed to obtain permission from property owners or police and fire departments as appropriate for the conduct of all filming or aerial photography and survey;
 - (i) the method of security that will be used to exclude all persons not directly involved with the operations;
 - (j) the procedure to brief personnel of the risks involved;
 - (k) the procedure to be followed during an emergency and safeguards to be followed during filming so as to avoid accidents;
 - (l) the procedure to ensure that the required inspections are conducted;
 - (m) the procedure to provide communications capabilities with all participants during the operation; and
 - (n) the procedure for notification and reporting of accidents.

PART VIII – Sightseeing Flight Operations

37. (1) A person shall not conduct any sightseeing operations unless he or she has been issued a certificate in accordance with regulation 5.

Sightseeing operations

(2) This Part applies to any flight that —

- (a) is advertised as a sightseeing flight;
- (b) is conducted within a 25 nautical mile radius of the departure airport unless the Authority approves a longer route;
- (c) has a certified passenger capacity of not exceeding 9 passengers; and
- (d) takes off and returns to the same airport.

38. (1) A sightseeing operation shall be conducted —

- (a) in visual flight rules weather conditions; and
- (b) between the hours of official sunrise and official sunset.

Sightseeing operations rules

(2) A person shall not conduct sightseeing operations over congested areas or open air assemblies of persons at a height below 1,000 feet above the highest fixed object within 2,000 feet of the aircraft.

PART IX — *General Provisions*

Clearance requirements

39. The prescribed minimum cloud clearance and minimum altitude requirements shall not apply to operations in relation to fish spotting, game spotting and motor vehicle competition.

Emergency operations

40. (1) A person who is issued with an agricultural air operator certificate or a rotorcraft air operator certificate shall be exempt from complying with the provisions of these Regulations when conducting an emergency operation involving the safety of persons or property or any other welfare activities approved by the Authority.

(2) A person who is exempt from the provisions of subregulation (1) shall within 10 days after such operation, send a complete report to the Authority with details of the aircraft involved, the description of the operations and the reasons for such an operation.

Safety management system

41. A person issued a certificate by the Authority under these Regulations shall establish and maintain a safety management system which shall provide for —

- (a) safety hazards procedures;
- (b) any remedial action necessary to maintain acceptable levels of safety;
- (c) the procedure for the continuous monitoring and improving the overall level of safety;
- (d) safety accountability throughout the operator's business enterprise.

Drug and alcohol testing

42. (1) A person who performs any function prescribed by these Regulations directly or by contract, may be tested by the Authority for drug or alcohol use.

(2) The Authority or any person authorised by the Authority may suspend or revoke a certificate or authorisation issued under these Regulations if the Authority or the person authorised by the Authority wishes to test a person referred to in subregulation (1) for the percentage by weight of alcohol in the blood or for the presence of narcotic drugs, or stimulant drugs or substances in the body, and that person —

- (a) refuses to submit to the test; or
- (b) having submitted to the test, refuses to authorise the release of the test results.

(3) In determining whether or not to suspend or revoke the certificate, or authorisation, the Authority shall consider all relevant factors, including —

- (a) whether the certificate holder had knowledge of the drug or alcohol use;
- (b) whether the certificate holder encouraged the person to refuse the drug or alcohol test;
- (c) whether the certificate holder dismissed the person who failed or refused the drug tests;
- (d) the position that person held within the operations of the certificate holder; and
- (e) whether the certificate holder encouraged the person to refuse to authorise the release of the test results.

(4) The Authority shall require a certificate holder to provide reasons why a person who has tested positive for alcohol or drug use should not be dismissed from the employment of the operations of the certificate holder.

(5) A person who is convicted, whether in or outside Botswana, for any offence relating to the growing, processing, manufacture, sale, possession, use, transportation or importation of narcotic drugs, or stimulant drugs or substances, shall be dismissed from the employment of the certificate holder.

(6) The Authority may suspend or revoke the certificate of an operator who refuses to dismiss from its employment a person convicted under subregulation (5).

43. (1) A holder of a certificate issued under these Regulations may apply, in writing, to the Authority, to change the name on a certificate.

Change of name

(2) The applicant under subregulation (1) shall include with any such application —

- (a) the current certificate sought to be amended; and
- (b) the court order or any legal document verifying the name change.

44. (1) A person shall not —

Offences and penalties

- (a) forge or alter any certificate issued under these Regulations;
- (b) use any certificate issued under these Regulations which has been forged, altered, revoked or suspended or to which he or she is not entitled;
- (c) lend or transfer any certificate issued under these Regulations to any other person; or
- (d) make any false representation for the purpose of procuring a certificate or authorisation.

(2) A person who fails to comply with the provisions of subregulation (1) commits an offence and is liable to a fine not exceeding P50 000, or to imprisonment for a term not exceeding ten years, or to both.

(3) A person who contravenes the provisions of any regulation for which no penalty is prescribed commits an offence and is liable to a fine not exceeding P50 000, or to imprisonment for a term not exceeding 10 years or to both.

Savings

45. A certificate issued under the Air Navigation Regulations shall remain valid until its expiry date whereupon the person issued with the certificate shall apply under these Regulations for a new certificate unless, such certificate is revoked before its expiry.

46. Notwithstanding any other provision of these Regulations, a person who at the commencement of these Regulations, is carrying out any acts, duties or operations, affected by these Regulations, shall within 3 months from the date of commencement, or within such longer period as the Minister may, by notice in the Gazette prescribe, comply with the requirements of these Regulations or cease to carry out such acts, duties or operations.

Transitional provisions

SCHEDULE 1

FORM A
(Regulation 4 (5))

Authorisation to Fly a Foreign Registered Aircraft

PART I: To be completed by all applicants

<p>1. Company registered name: Address:..... Telephone:..... Fax:..... E-mail:.....</p>	<p>2. Address of the principal place of business:..... Address:..... Telephone:..... Fax:..... E-mail:.....</p>
<p>3. Proposed start date of operations.....</p>	
<p>4. Operational management personnel</p>	
<p>Name and title:</p>	<p>Telephone:..... Fax:..... Email:.....</p>
<p>PART II: Type of approval requested</p>	
<p>5. Type — (a) Air operator intends to conduct aerial work operations to and from aerodrome in Botswana; (b) Air operator intends to only over flights and technical stops in Botswana.</p>	

<p>6. Aerial work proposed type of operation —</p> <p>(a) agricultural air operation;</p> <p>(b) glider towing operation;</p> <p>(c) banner towing operation;</p> <p>(d) television air operation;</p> <p>(e) sightseeing flight operation;</p> <p>(f) fish spotting operation;</p> <p>(g) game spotting;</p> <p>(h) motor vehicle competition;</p> <p>(i) any other aerial work operations.</p>	<p>7. Geographical area of intended operations and proposed route structured —</p>
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PART III: To be completed by the Civil Aviation Authority of Botswana

<p>Evaluated by:.....</p>	<p>CAAB decision:</p> <p>Approval granted:.....</p> <p>Approval not granted:.....</p>
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Remarks:

<p>Signature of CAAB representative:</p>	<p>Date:</p>
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<p> </p>

FORM B
(Regulation 5 (1))

Application for Aerial Work Certificate

PART I: To be completed by all applicants

Initial issue: **Amendment:** **Renewal:** (tick where applicable)

<p>1. Company registered name: Address:..... Telephone:..... Fax:..... E-mail:.....</p>	<p>2. Address of the principal place of business:..... Address:..... Telephone:..... Fax:..... E-mail:.....</p>
<p>3. Proposed start date of operations.....</p>	
<p>4. Operational management personnel</p>	
<p>Name and title:</p>	<p>Telephone:..... Fax:..... E-mail:.....</p>
<p>PART II: Type of approval requested</p>	
<p>5. Type – (a) Air operator intends to conduct aerial work operations to and from aerodrome in Botswana; (b) Air operator intends to only conduct flights and technical stops in Botswana.</p>	

6. Aerial work proposed type of operation;

(a) agricultural air operation;

(b) glider towing operation;

(c) banner towing operation;

(d) television air operation;

(e) sightseeing flight operation;

(f) fish spotting operation;

(g) any other aerial work operations.

7. Geographical area of intended operations and proposed route structured —

PART III: To be completed by the Civil Aviation Authority of Botswana

Evaluated by:.....

CAAB decision:

Approval granted:.....

Approval not granted:.....

Remarks:

CAAB authorised signatory:

Name:.....

Date:.....

Title:.....

Signature:.....

Please note: *A copy of a valid private pilot licence, commercial pilot licence, airline transport pilot licence, were necessary, a copy of aerial work operations manual and a copy of a certificate of airworthiness shall be attached to this application.*

FORM C
(Regulation 6)

Aerial Work Certificate

The Republic of Botswana

Civil Aviation Authority Botswana

Aerial work certificate number:	Operator's name:..... Trading name:..... Operator's address:..... Telephone:..... Fax:..... Email:.....	Operational points of contact: Contact details, at which operational management can be contacted without undue delay are listed in
This Certificate certifies that..... is authorised to perform aerial work operations, as defined in the attached operations specifications in accordance with the operations manual and the.....		
Date of issue:	Name and signature: Title:	

Operations specifications
(subject to the approved conditions in the operations manual)

ISSUING AUTHORITY CONTACT DETAILS		
Telephone.....	Fax:.....	E-mail.....
Aerial work certificate number:.....		
Operator's name:.....		
Date:.....	Signature:.....	
Type of operation:.....		
Areas of operation:.....		

Special limitation:.....

Special authorisation	Yes	No	Specific approval	Remarks
Dangerous goods				
Low visibility operations approach and landing			CAT: __RVR__m DH: __ft RVR __m	
Take - off				
RVSM				
ETOPS			Maximum diversion Time: _____minutes	
Navigation specifications for PBN operations				
Continuing airworthiness				
Other				

SCHEDULE 2
(regulation 4 (4) (b), 5 (3), 6 (1), 8 (1) and 9 (2))

FEES

ACTIVITY	COST (PULA)
Authorisation for foreign registered aircraft	500 per month, or part thereof, for an aircraft not exceeding 5700 kg (weight) 800.00 per month or part thereof, for an aircraft not exceeding 5700 kg (weight)
Application for Aerial Work Operator's Certificate	500
Issuance of an Aerial Work Operator Certificate	30 for every 100 kg or part thereof of the aggregate weight of all aircraft to be operated under the certificate for a period of one year
Renewal of Aerial Work Operator Certificate	500
Application to amend certificate	10 for every 100kg or part thereof
Replacement of Aerial Work Operator Certificate or authorisation	250

MADE this 14th day of March, 2012.

HON. NONOFO E. MOLEFHI,
*Minister for Transport and
Communications.*