

Orders, Decisions and Circulars

GENERAL INSTRUMENTS

THE MINISTRY of TRANSPORTATION, PUBLIC WORKS, TOURISM AND THE SEA

Order of 10 April 2007 respecting wildlife hazard control on aerodromes

NOR: EQUA0700114A

Considering the Convention on International Civil Aviation of 7 December 1944 and all its amending protocols, including the protocol of 24 September 1968 on the Authentic Trilingual Text of the Convention, published by Order No. 69-1158 of 18 December 1969;

Considering the Civil Aviation Code;

Considering the Rural Code, notably articles L. 211-20 and L.21-22 thereof;

Considering the Labour Code, notably article L. 920-4 thereof;

Considering the Environment Code, notably articles L. 411-1 and L. 411-2, L. 414-1 to L. 414-6 and R. 427-5;

Considering Order No. 2000-285 of 30 March 2000 updating and adapting the labour law of Overseas France;

And considering Order No. 2005-57 of 26 January 2005 updating and adapting labour law, employment law and occupational training in Overseas France,

The Minister of Interior and Land Use Planning, the Minister of Transportation, Public Works, Tourism and the Sea and the Minister of Overseas France, HEREBY ORDER AS FOLLOWS:

Sec. 1. — The provisions hereof, enacted for the purpose of applying articles D. 213-1-14 to D. 213-1-25 of the Civil Aviation Code, establish the terms and conditions governing wildlife hazard control on aerodromes, and governing the requisite qualified personnel, the requisite works, and the controls to which such personnel and works are subject.

Sec. 2. — Preventive actions include:

- a) installing adapted fences;
- b) treating grassy and wooded areas adaptively;
- c) landscaping or eliminating humid zones;
- d) determining and controlling crops and the areas where crops are grown; and
- e) setting conditions and controls under which wildlife may graze.

Sec. 3. — An aerodrome operator shall be responsible for installing and partially burying an adapted fence, and for the maintenance of that fence, in order to prevent the intrusion of domestic and wild animals into the movement area.

Sec. 4. — An aerodrome operator shall ensure that any plants likely to serve as shelter or breeding areas for animals are eliminated, and shall determine precisely the nature of the plants that should be planted, when landscaped shoulders and strips are created.

In addition, an aerodrome operator shall determine the height of the plants and the frequency of mowing or reaping, based on the species of animals that make incursions into aerodromes.

Sec. 5. — Wetlands located on an aerodrome right-of-way must be made as unattractive as possible to birds by any appropriate means consistent with the provisions of articles L. 414-1 to L. 414-6 of the Environment Code, or the corresponding provisions applicable to Mayotte, Wallis and Futuna Islands, French Polynesia and New Caledonia.

Sec. 6. — Growing crops is prohibited on the developed strip associated with a runway.

Animal grazing is not permitted on an aerodrome right-of-way, except if the pasture is completely surrounded by a fence adapted to the animal species concerned, or if the animals are guarded throughout the aerodrome's hours of operation.

No one shall allow animals to graze in the developed strip associated with a runway, or on a grass runway, during the aforesaid hours of operation.

Sec. 7. — Scaring and removal measures are based on the following techniques:

1. Mobile and fixed acoustic scaring devices intended specifically for birds;
2. Mobile pyrotechnic scaring devices that use detonating and crackling projectiles;
3. Guns;
4. Optical scaring devices; and
5. Equipment for the removal of animals.

The equipment referred to in item 4 is not required on aerodromes where the wildlife hazard control measures are only used occasionally.

The implementation of any other technique must be the subject of a usage protocol between the prefect and the aerodrome operator, concerning the specific aerodrome.

The techniques listed above comply with the requirements in Schedule I.

Sec. 8. — Scaring and removal measures must be implemented whenever the known or reported presence of animals on the aerodrome right-of-way poses a collision risk.

Whenever animals gather on an active runway, scaring measures must be taken forthwith. They may be deferred when the location and behaviours of the animals poses no immediate risk.

Sec. 9. — If all the scaring measures have been attempted but are unsuccessful, the aerodrome operator may proceed to removing the animals. The terms and conditions governing the capture of animals, and the species of wild animal that may be shot, and the terms and conditions for returning household pets, tamed animals and captive animals, shall be set out in a prefect's order. The implementation of the provisions of this section shall be done in compliance with the provisions of the Rural Code and the Environment Code, or with the corresponding provisions applicable to Mayotte, Wallis and Futuna Islands, French Polynesia and New Caledonia.

Sec. 10. — I. An aerodrome operator shall have, at a minimum, the following operational and human resources for wildlife hazard control:

- an officer responsible for wildlife hazard control operations on an ongoing basis, if control is carried out on a permanent basis; or

- an officer capable of carrying out the removal operations in accordance with article D. 213-1-16, if the control is done on an occasional basis.

II. An aerodrome operator shall have, at a minimum, the following wildlife hazard control equipment:

- a terrain-suitable vehicle equipped for combating animals and capturing domestic animals;
- a mobile distress-call generator;
- a flare pistol with adapted flares;
- a starter revolver with adapted projectiles;
- a hunting gun with corresponding cartridges;
- a pair of high-magnification binoculars;
- a noise protection helmet, or ear valves.

On aerodromes that carry out control on a permanent basis, the minimum number of pistols and hunting guns is doubled.

Where justified by the prevailing wildlife and the aerodrome's operating conditions, the prefect may, after consulting with the operator, require the use of complementary measures, and may, upon the request of the operator, authorize adaptations to the set of equipment listed above.

III. Where the aerodrome has at least two runways that are more than 1000 metres apart at every point, the human resource and equipment requirements of titles I and II of this section are calculated by runway or by pair of close-together runways, except in the case of grass runways.

Sec. 11. — Where some or all the means necessary for preventing wildlife hazards are temporarily unavailable, the operator shall take action to ensure that this situation ceases forthwith and shall notify the air traffic authority.

In cases where the temporary suspension or reduction of these means is foreseeable, the air navigators shall be notified by publication.

Where it appears that these means will be unavailable for more than twelve hours, the aerodrome operator shall notify the air traffic organization, which shall request the publication of a notice to the air navigators.

Sec. 12. — Every aerodrome operator shall establish intervention directives. These directives shall provide for the rules governing the organization and implementation of wildlife hazard control, insofar as the control contemplated in item *a* of article D. 213-1-14 of the Civil Aviation Code, and the animal scaring and removal measures, are concerned.

Sec. 13. — The use of firearms by wildlife hazard officers or external beneficiaries shall be recorded in a log specifying the days and times that each firearm was taken and returned, the name of the user and the quantity of ammunitions discharged. When a firearm is entrusted to a weapons technician for maintenance, the technician's contact information shall be recorded in the log.

Firearms and munitions shall be stored in a fixed, secured cabinet accessible only to the wildlife hazard control officers.

The operator shall be kept informed of the animal strikes proven to have occurred on the aerodrome.

Sec. 14. — Reports of the strikes referred to in articles D. 213-1-19 and D. 213-1-22 of the Civil Aviation Code shall be prepared using the template set out in Schedule III of this order.

Sec. 15. — Where the wildlife hazard control staff exercises duties other than wildlife hazard control, the other duties entrusted to them must be compatible with their wildlife hazard control duties by nature, and organized compatibly therewith.

Every aerodrome operator shall ensure that the local intervention directives specify the ways in which this compatibility is ensured.

Sec. 16. — The training provided to wildlife hazard control staff shall include

- initial training on wildlife hazard control;
- local training concerning the specific characteristics of the aerodrome to which they are assigned; and
- skills maintenance and continuing education.

Sec. 17. — The initial training shall be given to staff before they commence their employment.

An aerodrome operator shall provide the prefect, for each officer designated by name, a certificate attesting to the fact that the officer received the initial training. The certificate shall set out the dates and places where the training was given, along with the name and address of the organization that provided the training.

The initial training program is set out in Schedule II of this order.

Sec. 18. — Officers shall be given local training at the facility where they are employed. This training shall deal with the wildlife hazard control characteristics of that aerodrome and with the use of radiotelephony.

An aerodrome operator shall provide the prefect with a certificate stating the name of each officer who has completed a local training course.

No officer may take an active part in scaring or shooting operations until the initial and local training certificates have been issued for that officer.

The requirements of this section apply each time an officer is assigned to a different aerodrome.

Sec. 19. — At least every three years, wildlife hazard control staff shall be given skills maintenance and continuing education courses in order to ensure that their professional knowledge is retained and that they are adapting to changes in technology.

The courses in question shall include exercises with all the firearms and related supplies used by the operator in connection with wildlife hazards.

Sec. 20. — The initial training may be given by any registered professional training organization within the meaning of art. L. 920-4 of the Labour Code that has been approved by the Direction générale de l'aviation civile [DGAC] or by an organization coming within the corresponding provisions applicable to Mayotte, Wallis and Futuna Islands, French Polynesia and New Caledonia.

The local training, and the skills maintenance and continuing education, may also be given by people who have held supervisory positions in the field of wildlife hazard control for at least two years and have a solid knowledge of the aerodrome concerned.

Sec. 21. — Any officer who has been away from his wildlife hazard control duties for more than 12 months must complete a new course of initial training.

Any officer who has been away from such duties at the same airport for more than six months must complete a new course of local training.

Wildlife hazard control officers who have been engaged in a bird hazard control activity for at least three months in the 12 months preceding the publication of this order are exempt from the initial training requirement.

Wildlife hazard control officers who have been engaged in a bird hazard control activity for at least three months in the six months preceding the publication of this order are exempt from the local training requirement for that airport.

Sec. 22. – The inspection visits contemplated in article D. 213-1-23 of the Civil Aviation Code must make it possible to ascertain whether all aspects of wildlife hazard control are being carried out in a satisfactory fashion on the aerodrome visited, and, among other things, whether the local intervention directives are being complied with, whether the officers have mastered the scaring procedures, and whether the equipment and supplies comply with the requirements and are in good condition.

Such visits must always be conducted in the presence of the aerodrome operator's representative. The reports of such visits shall be sent to the prefect and the aerodrome operator.

Sec. 23. – The provisions of this order apply to Mayotte, Wallis and Futuna Islands, French Polynesia and New Caledonia, without prejudice to local labour and environmental provisions. The powers conferred to the prefect are exercised by the government representative.

Sec. 24. - I. – The provisions of this order shall come into force on the first day of the fourth month following its publication for aerodromes which, in the course of the three preceding calendar years, have received more than 25 000 annual commercial movements of airplanes that are at least 12 metres in overall length.

However, the provisions concerning the installation of fences shall come into force on January 1, 2011.

II. For other aerodromes, except those in New Caledonia which have less than 2 000 annual commercial movements of airplanes at least 12 metres in overall length, the provisions of this order shall come into force on the first day of the thirtieth month following the publication of this order.

However, the provisions concerning the installation of fences shall come into force on January 1, 2012.

III. For airports in New Caledonia that have less than 2 000 annual commercial movements of airplanes at least 12 metres in overall length, the provisions of this order shall come into force on January 1, 2012,

Sec. 25. – The order of 24 July 1989 concerning bird hazard control on aerodromes, the Minister for civil aviation is primarily responsible, and the order of 29 June 1994 extending the preceding order to Overseas Territories, are replaced with this order when this order comes into force.

Sec. 26. – The director of strategic and technical affairs of the DGAC, the director of economic, social and cultural affairs for overseas France and the director for civil liberties and legal affairs are each responsible for the enforcement of this order, which will be published in the *Journal officiel* of the French Republic.

Paris, April 10, 2007.

*The Minister of Transport, Public Works,
Tourism and the Sea
per the Minister's Delegate,*

*The Director of Strategic
and Technical Affairs*
P. SCHWACH

*The Minister of Interior
and of Land Use Planning,
per the Minister's Delegate,
The Deputy Director for Civil Liberties
and the Administrative Police,*
M.-A. GANIBENO

*The Minister of Overseas France,
per the Minister's delegate,
The Director of Economic, Social
and Cultural Affairs for Overseas France,*
P. LEYSSENE

SCHEDULE I

TECHNICAL REQUIREMENTS GOVERNING THE EQUIPMENT AND SUPPLIES USED FOR WILDLIFE HAZARD CONTROL

The equipment and supplies used for the scaring and removal of animals must comply with the following requirements:

1. **Vehicles**

On aerodromes where wildlife hazard control is carried out on a permanent basis, one or more terrain-suitable vehicles, each equipped with a roof light, a VHF radio tied in to the control tower, and the full set of mobile wildlife control equipment.

On aerodromes where wildlife hazard control is carried out on an occasional basis, the vehicle or vehicles shall have the same characteristics, but the VHF radio shall operate on the aerodrome's frequency and may be portable.

2. **Mobile Animal Control Equipment**

2.1. *Pyrotechnic equipment*

Starter revolver equipped with a flare-launching attachment.

Smokeless blank primers.

Crackling flare with a range of 50 to 100 metres, producing a noise of approximately 120 dB(A) along its trajectory, capable of being fired from a starter revolver.

Detonating flares with a range of 20 to 50 metres, producing a noise of approximately 145 dB(A), measured at one metre, capable of being fired from a starter revolver.

Long-range flares that detonate at 300 metres and produce a noise of 150 db(A), measured at one metre, with corresponding launcher.

2.2. *Shooting equipment*

12-gauge double-barrel gun of the *Parcours de Chasse* type.

12-gauge cartridges.

2.3. *Distress call generator*

A synthesizer that can be placed aboard a vehicle, has a memory containing at least five species' distress calls and two multispecies signals, and reproduces the natural calls of the birds that are most frequently encountered on aerodromes (seagulls (*mouette* and *goéland*), plover, raven, crow, cormorant) and are most hazardous to air navigation.

Amplifier: 30 watts RMS, with a range of 100 Hz to 16 kHz, a distortion of less than 1% at 1 000 Hz, and a 12-volt direct current power supply.

30-watt pressure-chamber loudspeaker.

3. **Fixed equipment**

3.1. *Remote-control distress call generator*

A device that has the same characteristics as the device in § 2.3, but which is equipped with a remote control with which the calls sent over the loudspeakers can be selected.

3.2. *Artificial noise generator*

A device that generates artificial "alarm" type signals (which are non-harmonic and unpleasant to birds) and transmits these signals to power amplifiers and loudspeakers placed along the runway. The noise level must attain 80 dB(A) on the runway centre line, in the most uniform manner possible.

Such noise generators must also be capable of diffusing specific distress calls using a special remote control.

3.3. *Optical scaring device*

A fixed, automatic bird scaring device that employs a laser source, an optical lens for beam enlargement, and software by which the beam can be directed by elevation and azimuth and by which its power and velocity can be controlled. At the point of discharge, the device must comply with eye safety standards.

A portable laser pistol that complies with eye safety standards.

4. **Miscellaneous equipment**

"Firing range" noise protection helmet meeting or exceeding the type 817 NST standard; or ear valves (with a noise reduction of 10-20 dB[A]).

Specific safety gloves.

Binoculars providing not less than 10 x 50 magnification.

SCHEDULE II
INITIAL WILDLIFE HAZARD CONTROL TRAINING

Duration: Approximately 21 hours, with the specified time devoted to each module.

THEORY SEGMENT (approx. 14 hours)

MODULE	CONTENT	Average duration
General aeronautical knowledge	Airport structure (runways, centre lines, parking, etc.) Marking/lighting of runways, taxiways, approach lights Air traffic regulation (including taxiing). Aeronautical phraseology. Meteorology Radio-electrical aids. ATZ operational rules	2 hrs.
Knowledge of aircraft	Identifying aircraft Structure of aircraft Engine types (piston, turboprop, jet).	1.5 hrs
Purposes of wildlife hazard control	National regulations. Mammal and bird strike statistics Examples of incidents and accidents. Vulnerability of aircraft Aerodrome caution zones	1.5 hrs
Ornithology and mammalogy	Morphology of birds and mammals; sensory organs. Classification of species. Adaptation of environments; migration; local movement; behaviour Species involved in strikes/collisions Protected species: regulation	4.5 hrs.
Environment	Attractants and solutions in the aerodrome right-of-way (water, grass, crops, refuse, wooded zones, etc.)	1.5 hrs.
Animal control techniques and measures	Scaring techniques and measures (vehicle, fixed and mobile acoustic techniques, pyrotechnics), hunting equipment, intervention strategy, dog catching). Local directives, coordination with relevant authorities	3 hrs.

PRACTICAL SEGMENT (approx. 7 hours)

Mammal and bird detection: aerodrome inspection route, use of binoculars and telescopes.

Identification of mammal species: use of guides, criteria (size, colour, call, song), and estimating numbers of animals.

Use of the different scaring and removal techniques: distress calls, pyrotechnics.

Use of hunting equipment, safety directives (use, storage, etc.)

Intervention exercises

Phraseology

Animal remains collection

Preparing the daily interventions report sheet.

SCHEDULE III

ANIMAL IMPACT REPORT TEMPLATE

1. Operator:
2. Aircraft (manufacturer/model) :
3. Motor (manufacturer/model) :
4. Aircraft registration:
5. Date DayMonthYear
6. Time (GMT):
7. DuskDaylightDawn Night ...
8. Name of aerodrome :
 - runway utilized:
 - place of incident (if en route):
9. Altitude feet.
10. Indicated airspeed knots.
11. Flight phase :
 - taxiing:
 takeoff (0-50 ft) :
 - climb (> 50 ft) :
 - cruising:
 - holding:
 - descent:
 - approach (100-50 ft):
 - landing (<50 ft):
 - unknown:
12. Beacons on?....
 - landing lights:
 - flashing lights:
13. Weather conditions:
 - VMC IMC:.....
 - clouds:
 - visibility:
 - fog: rain: snow:
14. Species:

NUMBER OF ANIMALS	AFFECTED	SEEN
1 2 to 10 11 to 100 More than 100		

Size of animals:

- small:
- medium:
- large:

15. Effects on flight:

- none::
- takeoff interrupted:
- precautionary landing:
- engine shutdown:
- other (specify at item 18):

Pilot notified of presence of animals?

- Y – N

16. Parts of aircraft affected and damage incurred:

	STRUCK	DAMAGED
Radome		
Windshield		
Aircraft nose		
Engine No. 1		
Engine No. 2		
Engine No. 3		
Engine No. 4		
Propeller		
Wing/Rotor		
Fuselage		
Landing gear		
Tail unit		
Lights		
Other (specify at item 18)		

17. Aircraft downtime:

- hours:

Estimated repair or replacement costs:

Other estimated costs (e.g. fuel, hotels, loss of income):

18. Remarks: