

WP/21

REGULATIONS
REGARDING
MANAGEMENT OF AIRPORTS
FOR REDUCTION OF THE RISK OF COLLISIONS
BETWEEN AIRCRAFT AND BIRD/GAME ON AERODROMES IN DENMARK

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SUMMARY

The paper contains a description of the measures imposed upon Danish aerodromes to reduce the risk of collisions between aircraft and bird/game on aerodromes.

The concessionaries of the aerodromes are obliged to become acquainted with the extent of the bird strike risk, to refrain from setting up duck ponds and sanctuaries, to prevent that dumps are located at a certain distance from the aerodrome, to set up cultivation and planting programmes, to carry out scaring and fighting measures, and finally to report collisions, send bird remains, etc. for identification, and report killings of birds and game, the latter to comply with EEC regulations.

**MEASURES TO REDUCE THE RISK OF COLLISION
BETWEEN AIRCRAFT AND BIRD/GAME ON AERODROMES**

In pursuance of Section 52, Subsections 10 and 13 of Section 149, and Sub-section 2 of Section 153, of the Danish Air Navigation Act, cf. Consolidation Act No. 381 of 10th June, 1969, as amended by Act No. 94 of 29th March, 1972, and most recently by Act No. 261 of 8th June, 1983, the Directorate of Civil Aviation on authority of the Ministry of Public Works hereby stipulates the following regulations:

1. APPLICABILITY

1.1 These regulations apply to public aerodromes and military air bases used in scheduled air traffic by aircraft of an MTOW above 5700 kg.

1.2 The compulsory reporting, however, as mentioned in para. 6 of these regulations does not apply to the military air bases.

2. GENERAL

2.1 Considering the nature and extent of the local bird/game problem it is up to the person in charge of the establishment and operation of an aerodrome, the civil management as regards military air bases, or the airline servicing the aerodrome, hereinafter called the concessionary, to take measures to reduce the risk of collision between aircraft and species of bird/game.

2.1.1 Included in 2.1 is the responsibility of the concessionary to become acquainted with the extent of the problem that could arise from bird/game.

2.2 Measures aiming at increasing the population of bird/game through feeding the birds, putting out bird/game, and setting up duck-ponds and sanctuaries, are not to be taken within the area of the aerodrome.

2.3 It is under the supervision of the concessionary to prevent that places for dumping edible garbage are located/situated at a distance of less than 6.5 km from the aerodrome or that they have such a location/situation that birds fly over the aerodrome on their way to/from any such garbage dumps and nesting sites.

2.3.1 Reports shall be made to the Directorate of Civil Aviation, where the concessionary, through the concessionary's representative, of the garbage dump has failed to comply with the provisions of the provisions contained in 2.3.

3. CULTIVATION PROGRAMME

The concessionary must compose a cultivation programme in accordance with the below mentioned instructions. The cultivation programme has to be approved by the Directorate of Civil Aviation.

- A. Land without any coating that is located/situated at a distance between 150 m and 300 m from the limits of the runway/terminal, but within the area of the aerodrome:
- The area is to be laid out as a crop of grass, or other vegetation, such as e.g. heather, by the Directorate of Civil Aviation, if it is judged to be of a quality that has sufficient value for use.
 - The grass to be laid out should be soft grass, such as red fescue and red fescue, and be of a quality that is suitable for use.
 - The grass should always be kept at a height of 40 mm (with a 40 cm). It is, however, possible to adjust the height of the grass to requirements prescribed for fixed installations, such as navigation lights, ILS installations, etc. (as well as for other installations on land zoned as traffic areas for smaller aircraft, such as safety zones, and grass runways).
 - Grass cuttings are to be removed immediately after being cut, unless it is deemed unnecessary due to frequent cuttings.
 - Grass on aerodromes inflicted by a large population of geese is to be cut short in the months of October and November.
 - Mowing must only be made if agreed with the local office of the Directorate of Civil Aviation.
- B. Land without any coating that is located/situated at a distance between 150 m and 300 m from the limits of the runway/terminal, but within the area of the aerodrome:
- The area is to be laid out for growing of grass, or other vegetation, unless the natural vegetation, such as e.g. heather, by the Directorate of Civil Aviation is judged to be of a quality that is suitable for use for bird/game.
 - On approval by the Directorate of Civil Aviation, the concessionary may use land for grain-growing. Harvest of the grain that is still green used for cattle-feeding will not be allowed.

- c) Fertilization by means of manure is prohibited.
- C. Land without any coating that is situated at a distance of 300 m outside of the limits of the runway/runways, but within the area of the aerodrome:
 - On approval by the Directorate of Civil Aviation in each separate case land may be used or leased out for farming purposes.
- D. The Directorate of Civil Aviation may specify the conditions for land located outside the area of the aerodrome, but within the above-mentioned distances from the limits of the runway/runways, as well as prescribe the concessionary the task of ensuring a specific use of the land within these areas, if necessary by compulsory purchase.

4. PLANTING PROGRAMME

The concessionary must, if deemed necessary by the Directorate of Civil Aviation, compose a planting programme for the aerodrome area. The planting programme is to be approved by the Directorate of Civil Aviation. In determining the programme a selection of plants, bushes, and trees which provides the least nourishment for birds, should be chosen.

5. SCARING AND FIGHTING

5.1 It rests with the concessionary to watch the occurrence of bird/game in the manoeuvring area within the operational hours of the aerodrome.

5.1.1 Large-scale bird/game observation has to be reported without delay to the local air traffic unit.

5.2 Scaring away

5.2.1 Unless scaring away measures are applied regularly, scaring away of bird/game should be initiated not less than 15 minutes before each take-off/landing of jet aeroplanes.

5.2.2 In connection with take-off/landing of turbo prop aeroplanes and helicopters similar measures are to be taken if there is a large-scale concentration of birds or if the pilot in question may ask for such assistance.

5.3. Fighting

5.3.1 Within the area of an aerodrome as many birds nests as possible should be removed.

5.3.2 The stock of game should be reduced to a minimum through intensive seasonal hunting. Bird/game should be shot as often as is deemed necessary to secure that other scaring measures retain their effect. This kind of shooting is regulated through Section 6 of Consolidated Act No. 654 of 10th December, 1982 from the Ministry of Agriculture according to which it is possible to hunt regardless of the close-time regulations laid down in the Game Act. Hunt for fur, such as hare and deer, must only take place within their hunting season.

5.4 In connection with mowing and soil preparation of adjacent agricultural areas, intensified measures should be applied to scare away and fight the bird/game.

5.5 If necessary, the Directorate of Civil Aviation may specify further conditions for fighting bird/game at each single aerodrome.

6. COMPULSORY REPORTING

6.1 Reports on collisions with bird/game has to be sent to the Directorate of Civil Aviation completed on special bird strike reporting forms issued by the Directorate of Civil Aviation.

6.1.1 It rests with the concessionary, when evidence of bird strikes is discovered by ground personnel, to send bird remains and dead birds found on the aerodrome to the Game Biological Station, Kalø, DK-8410 Rønne. In case of bird strikes at Copenhagen Airport, Kastrup, and Copenhagen Airport, Roskilde, the remains and findings are to be sent to the Zoological Laboratory, Universitetsparken 15, DK-2100 Copenhagen Ø. Information on the circumstances under which the evidence was found and, if possible, information on the circumstance under which the bird strike took place, should appear from the report as well.

6.2 The Directorate of Civil Aviation may specify further instructions for the dispatch of bird remains and bird corpses.

6.3 Reports on the number of birds and game that have been killed during the period 1st April through 31st March, are to be sent to the Directorate of Civil Aviation not later than the 15th of April of the year in question.

7. EXEMPTION

In exceptional cases the Directorate of Civil Aviation may grant exemption from the stipulations prescribed in these regulations.

8. VIOLATION

Violation of the conditions contained in these regulations is punishable with fine or imprisonment, cf. Subsection 10 of Section 149 of the Danish Air Navigation Act. Violation, committed by a limited company, co-operative, or the like, of these regulations is punishable with fine, cf. Subsection 13 of Section 149 of the Danish Air Navigation Act.

9. IMPLEMENTATION

These regulations come into force as from 1st June, 1984.