

BSCE/13 AERODROME WORKING GROUP WP

Length of the Grass Along the Runways

(Presented by the Vice Chairman of the Aerodrome Working Group)

1. INTRODUCTION

In accordance with the recommendation of the 12th BSCE Meeting in Paris in October 1977 the Vice Chairman asked by letter of January 3, 1978, participants to the Aerodrome Working Group Meeting from 18 countries to give information on the following subject:

What is your position regarding the question of length of the grass along the runways, and indicate especially if you allow the grass to grow long right up to the runway ?

2. Answers have till April 14, 1978 been received from the following countries: Austria, Belgium, Canada, Czechoslovakia, Denmark, the Federal Republic of Germany, France, Hungary, Israel, the Netherlands, Poland, South Africa, Sweden, Switzerland, United Kingdom, and USA and are as follows:

Austria:

Grass length is kept as short as possible to a maximum of 6-40 cm.

Belgium:

Civil Airports: The grass should be grown long right up (- 20 cm) over the airport as much as possible, especially on the manoeuvring areas adjacent to:

- a) within the graded area of a runway strip (150 m on each side of the centre line).
- b) within the graded area of a taxiway strip (38 m on each side of the edge of the taxiway).

Military Airports: There are three zones:

- a) Zone 1: 2 m from the edge of the runways and taxiways short grass.
- b) Zone 2: From Zone 1 until 30 m from the edge of the runway and 15 m from the edge of taxiway long grass with a minimum height of 20 cm. This grass will be cut once or twice a year.
- c) Zone 3: Rest of airfield: Several prescriptions individual for each airport.

Canada:

Transport Canada Standards require the length of grass to be maintained at 5 inches to 7 inches within 500 feet of the runway centre line.

Czechoslovakia:

A recommended length of the grass at the airport area (especially, in the strip) is 15-25 cm. The grass is mowed four times in one year. In other adjoining areas the length of the grass can be about 40 cm. We do not allow the grass to grow up to the joints in the runways and taxiways.

Denmark:

There is a requirement to the effect that the length of grass to be maintained at 15-20 cm all over the airport and right up to the runways. Exceptions are made in the vicinity of airport lights situated in grass areas.

The Federal Republic of Germany:

The question of the length of grass at a civil airport depends on the judgement of the biotop expertise required in accordance with the guidelines. In no circumstances will we accept the required grass length to grow right up to the runway. The grounds for this judgement are as follows: Danger of fire, especially in the autumn, and danger of having low instruction signs and airport lights overgrown with weeds.

France:

For safety reasons (danger of fire), for lack of adequate equipment, and due to cost-consuming maintenance, it is very often impossible to have the grass in the grass zones kept at the height recommended by ICAO (23 cm). Most of the time the grass is cut very short (5-6 cm) 5 or 6 times a year by a special lawn-mower; gleaning of the grass is only made at well-equipped airports.

Hungary:

Grass is generally cut short on the whole area of the airport.

Israel:

We have specific laws that enjoin proper care of the land within the area of airports. According to this law, only the Director of the airport is authorized to issue a permit for the use of the land to outsiders. The conditions over there are that farmers have so far received permits to farm the land, and it is difficult today to prevent them from doing so, or to force them to grow specific agricultural crops, or the grass at a specific length, since there are other government authorities involved that strongly protect these farmers.

The Netherlands:

At Schiphol the area of 50 m at each side of the runway and 500-1000 m at each end of the runway is covered with grass. The grass is kept long, the minimum cutting height is 25-30 cm.

Poland:

No experiences.

South Africa:

The policy is to keep the grass short although experiments with longer grass have been carried out with inconclusive results.

Sweden:

We have no national recommendation concerning length of grass in an airport. The routines are different in different places, but they do not cut the grass short in airports where this method will favour the local bird population. In the Swedish book "Fåglar och flyg" (birds and aviation) a lower grass length of 15-20 cm is recommended.

Switzerland:

Military airfields: In the case where the Military Department is the owner of the land there are new regulations with the following main points:

- grass to be kept longer than 10-12 cm within 150-200 m on both sides of the runways.

United Kingdom:

Long grass is recommended as a bird deterrent at aerodromes with paved runways. Grass within 5 metres of such runways should not be longer than 10 cm, but elsewhere a maximum length of 20 cm is suggested, however specialist advice is recommended before adopting a long technique at specific airports. This is considered in paras 4.3 and 4.4 of a document issued by CAA to UK airport operators entitled "Bird Control on Aerodromes" ref CAP 384.

USA:

Federal requirements do not address the question of proximity or length of grass adjacent to runway surfaces. Grasses and other forms of vegetation that are likely to attract birds are not recommended near runways. Airport operators are encouraged to work with local and state wildlife personnel to avoid landscaping that might attract birds and other wildlife.

Three courses of action should be considered by the Aerodrome Working Group.

- a) Due to the differences in the local conditions at each airport in each country, no recommendation should be made, and the problem be left in abeyance after the above material has been made available to the competent authorities.
- b) A recommendation from the meeting should be worked out.
- c) Based on the discussion on the Working Paper the Chairman should be asked to draft a recommendation to be presented at the next meeting of the Working Group for approval.

BSCE/13 AERODROME WORKING GROUP WP
-----Sanctuaries in the Vicinity of Airports

(presented by the Vice Chairman of the Aerodrome Working Group)

1. INTRODUCTION

In accordance with the recommendation of the 12th BSCE Meeting in Paris in October 1977 the Vice Chairman asked by letter of January 3, 1978, participants to the Aerodrome Working Group Meeting from 18 countries to give information on the following subject:

Are there in the vicinity of your airport sanctuaries where it is not allowed to carry out the measures considered necessary to secure aviation safety ?

2. Answers have till April 14, 1978 been received from the following countries: Austria, Belgium, Canada, Czechoslovakia, Denmark, the Federal Republic of Germany, France, Hungary, Israel, the Netherlands, Poland, South Africa, Sweden, Switzerland, United Kingdom, and USA
and are as follows:

Austria:

No. Aviation safety measure can always be taken.

Belgium:

Civil Airports: No.

Military Airports: For one airport there is a sanctuary at about 5 km from the boundary of the airport.

Canada:

Transport Canada Standards and Guidelines can only be enforced on land owned by Transport Canada. However, if a sanctuary (or any land use) on land not owned by Transport Canada is creating a serious bird strike problem, a regulation can be promulgated under the Aeronautics Acts which would give Transport Canada the power to have removed any serious threat to aviation safety.

Czechoslovakia:

In the vicinity and surroundings of the airport Prague-Ruzyně there are Nature Reserves "Sárka" and "Hvezda", where the measures on the protection of freely living animals are valid.

Denmark:

Attempts are made to reduce and control the breeding population of the herring gull near Copenhagen Airport. As part of control programme it is considered necessary to reduce the rate of reproduction in herring gull colonies of two bird sanctuaries on the Swedish side of Øresund, but so far permission by Swedish owners and authorities could not be obtained.

There are no sanctuaries in the immediate vicinity of the military airports, nor the provincial civil airports. The shortest distance of the runway to a sanctuary for military airports is 12.5 km and for provincial civil airports 3 km.

If, however, a sanctuary in Denmark is creating a serious bird strike problem, regulation could be promulgated under the Aeronautics Act which would give the Civil Aviation Authority the power to have removed any serious threat to aviation safety.

The Federal Republic of Germany:

If there happen to be sanctuaries in the vicinity of an airport, the airport authority can take measures considered necessary to prevent congregations of birds.

France:

In France there are no airport situated in the immediate vicinity of bird sanctuaries. If that case should arise, there are no legal wording which would make it possible to intervene for the benefit of aviation safety.

Hungary:

There are no sanctuaries in the vicinity of Ferihegy Aerodrome.

Israel:

The reply is negative.

The Netherlands:

There are some sanctuaries a few miles from the airport. No bird reducing measures could be taken there so far.

Poland:

I do know such examples.

South Africa:

Not at the moment, but difficulties could arise in the future. We would then call upon the local authority concerned to take whatever measures were in their power.

Sweden:

Only in one case there is a shallow lake at a distance at about 1 km from an airport with a rich bird life, and which is sanctuary. However, measures have not been considered necessary there.

Switzerland:

No sanctuaries in the vicinity of military airports.

Zürich Airport:

There are sanctuaries in the immediate vicinity and partly within the confines of the airport, but they are not more attractive for the most problematic bird species (gulls and birds of prey) than the cultivated land. If necessary, special permission for the dispersal of the most dangerous species can surely be obtained.

United Kingdom:

There are no bird sanctuaries near UK aerodromes so, to date there is no UK problem. Such proposals would come under the consultative procedures in the "Town and Country Planning (Aerodromes) Direction, 1972" according to which local authorities are asked to consult with our Civil Aviation Authority (CAA). Existing UK Bird Protection laws do not take account of the need to safeguard aviation from bird hazards. The CAA is making representations to the UK Government on this issue.

USA:

In the carrying out of the bird reduction programs on an airport or in the vicinity of bird sanctuaries, it is necessary for those conducting the programs to clear their action with the U.S. Fish and Wildlife Service and various other local and national wildlife preservation organizations.

3. Three courses of action should be considered by the Aerodrome Working Group.
 - a) Due to the differences in the local conditions at each airport in each country no recommendation should be made, and the problem be left in abeyance after the above material has been made available to the competent authorities.
 - b) A recommendation from the meeting should be worked out.
 - c) Based on the discussion on the Working Paper the Chairman should be asked to draft a recommendation to be presented at the next meeting of the Working Group for approval.

BSCE/13 AERODROME WORKING GROUP WP

Trees and Bushes in the Vicinity of Airports

(presented by the Vice Chairman of the Aerodrome Working Group)

1. INTRODUCTION

In accordance with a recommendation of the 12th BSCE Meeting in Paris in October 1977 the Vice Chairman asked by letter of January 3, 1978, participants to the Aerodrome Working Group Meeting from 18 countries to give information on the following subject:

Are there in your country regulations regarding the existence of trees and bushes in the vicinity of airports ?

If yes, give all details.

2. Answers have till April 14, 1978 been received from the following countries: Austria, Belgium, Canada, Czechoslovakia, Denmark, the Federal Republic of Germany, France, Hungary, Israel, the Netherlands, Poland, South Africa, Sweden, Switzerland, United Kingdom, and USA

and are as follows:

Austria:

No regulation.

Belgium:

No.

Canada:

Trees and bushes are to be removed from the areas within 500 feet of the runway centre line.

Czechoslovakia:

The internal regulation states methods how to reduce the possibility of freely living animals hazards in the airport area. The regulation also orders to realize a maximum restriction on natural shelters, vast leafy-tree woods and bushes in the vicinity of runways.

Another regulation modifies conditions for a special maintenance of the ground radio and communication facility protection areas for civil aviation.

Denmark:

There are no regulations regarding the existence of trees and bushes in the vicinity of airports outside the airport area. On the military airports trees and bushes have been removed in a distance of 600 m from the runway; on the provincial civil airports in a distance of 50-300 m from the runway.

At the southern border of the Copenhagen Airport a stand of spruce is to be found 1500 m from the nearest runway. The trees are making an environmental protection lessening the noise and smell for the neighbours.

Sometimes, however, flocks of starling settle in the trees, and must be dispelled. If the starlings give motivation to dispose of the trees from the airport area, the birds would settle outside the border, but the distance to the runway would be only 50 m longer. In this situation it is not possible to dispel the birds, and the neighbours would get greater inconveniences from the airport. As the birds which stay in the tree area presumably are not a hazard to the traffic on the runways, the airport authority decided to keep the spruce standing. In general the airport authority wants - with regard to environmental protection - to keep the trees around the airport and has therefore kept solitary trees even though the distance to the runway is only 300 m.

The Federal Republic of Germany:

There are no general regulations regarding the existence of trees and bushes outside the airport owned area. Should, however, due to judgement of the local biotop expertise, the occasion arise, it is possible to take measures to have the trees and bushes removed.

France:

Wild bushes and trees are extremely rare at airport areas. They are cut down if they serve as resort for nesting and resting birds. The below list of trees and bushes attractive to birds has been distributed to the chiefs of airport:

- barberry (all species)
- Oregon grape (*Mahonia aquifolium*)
- Virginia creeper (all species)
- Holly (*Ilex aquifolium*)
- Bushes and trees of the rose family (*Rosaceae*) bearing the below berries and fruits:
 - * blackberry and raspberry
 - * bird cherry
 - * plums
 - * sloe (blackthorn)
 - * mountain ash, rowan
 - * sallow (*Sorbus svecica*)
 - * hawthorn
 - * cotoneaster (*Crataegus pyracantha*)
 - * cherry laurel
 - * cotoneasters
 - * ivy
 - * elder
 - * strawberry-tree
 - * yew
 - * juniper berry

Hungary:

The presence of trees and bushes is controlled by obstacle restriction consideration.

Israel:

We have regulations controlling any elevated objects or constructions in the vicinity of airports. Any such object, including shrubs and trees, requires a permit of the Civil Aviation Authority, which imposes special arrangements of illumination and visible marking distance from the runways, etc.

Hungary:

The presence of trees and bushes is controlled by obstacle restriction consideration.

The Netherlands:

There is no regulation regarding the existence of trees and bushes in the vicinity of the airport.

Poland:

No general regulations.

South Africa:

No, except the normal regulations in connection with obstruction clearances (Flight Path).

Sweden:

There are no regulations regarding the existence of trees and bushes in the vicinity of airports or runways at airports, but we are very careful about this problem in airports situated in bird rich areas. Especially, when the Malmö-Sturup Airport was built, we eliminated a considerable amount of trees and bushes for the reason of diminishing the attractiveness for birds.

Switzerland:

Regulations are only available with respect to obstacles (ICAO Annex 14).

United Kingdom:

Trees and bushes are treated as obstacles within areas to which the consultative procedures in the "Town and Country Planning (Aerodromes) Direction, 1972" apply. Where the "Local Planning Authority" and CAA cannot agree on the presence of trees and bushes, an inquiry could result leading to a ministerial decision.

USA:

The only Federal regulations that might be applicable to trees in the vicinity of airports involve those regulations defining obstructions to navigable airspace. From a bird hazard standpoint, the FAA has published guidance recommending that no trees or shrubs be planted closer than 600 feet (180 m) from the centre line of active runways and taxiways. The Canadian document AC 70-11, Airport Grounds Development and Maintenance Manual, provides excellent information and guidance on this subject.

3. Three courses of action should be considered by the Aerodrome Working Group.
 - a) Due to the differences in the local conditions at each airport in each country, no recommendation should be made, and the problem be left in abeyance after the above material has been made available to the competent authorities.
 - b) A recommendation from the meeting should be worked out.
 - c) Based on the discussion on the Working Paper the Chairman should be asked to draft a recommendation to be presented at the next meeting of the Working Group for approval.