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FALCONRY AS A BIRD DETERRENT ON AIRPORTS

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1. Introduction

Since about 35 years the use of falcons to scare bird flocks from airfields has been discussed in several countries. Within the BSCE this problem or possibilities have been discussed many times (compare meeting reports since 1965). During the last years the use of falcons has been recommended inducing the impression falcons would be the single biological and successful method for scaring birds. The publisher of such reports apparently have been influenced by Falconer Societies and therefore the real problems coming from animal protection view as well as from ATC never had been discussed.

The German board for birdstrike prevention asked Dr. Werner Keil, Chief of the Ornithological Institute of Frankfurt, to investigate the problem under aviation and biological view points. The complete report is published in "Vogel and Luftverkehr" 1/1984.

2. Results

Falconry on airports/airfields shows the following difficulties which should exclude the use:

- a) Use of falcons (*Falco peregrinus*, *F. rusticolus*, *Accipiter gentilis*) is only possible during daytime.
- b) To scare birds on an airport all over a day you need many falcons because one individual, also under best conditions, will not be able to hunt many hours. Moreover the moulting period is the same at all falcons and during this period use is restricted.
- c) The single falcon mostly can be used only against few bird species, for during training time of the bird he is specialized on a certain prey (gulls, limicols, lapwings, starling, crows and pigeons).
- d) The delivery of falcons is difficult. So *Falco peregrinus* belongs to the out dying bird species all over the world. The delivery could be arranged by a domestic breeder; the price is between 500.- and 1.000.- DM. The delivery of *Accipiter gentilis* could be possible by de-nesting with a special permit of government (in Germany).
- e) An airport like Dusseldorf, Hamburg or Munich would have a need of 5 - 8 falcons, Frankfurt appx 10 - 12. Moreover it should be taken into consideration that a single falcon will perform maximum 5 flights of every 5 - 10 minutes duration per day. Because of their strong specialisation against special bird species it must be decided in a short time which falcon should be elected. In Frankfurt the frequency of aircraft movements is 40 seconds !

It is highly important (laws !) to keep, feed and care for the falcons according special directions; so you need

f.i. a special moulting room, moreover rooms for food storage and food preparation as well as care rooms. The estimated costs have been estimated on 20.000.- DM.

- g) The falconer personal on a normal airport should consist of 2-3 persons (falconers) and 2-3 assistants in order to guarantee application at every daytime and day all over the year. The often proposed use from time to time will be utopic under consideration of the effect. The costs for personal have been estimated on 200.000.- until 250.000.- DM per year, or the falconers must be employees of the airport. Moreover problems of security, flight safety and air traffic control should be taken under consideration.
- h) The cost for housing, food etc. of the falcons have been estimated on 5.000.- until 8.000.- DM per year.
- i) The falconer cannot assure that the falcon does not drive scared bird flock into direction of the runway; so the bird-strike risk will increase and also the falcon could be a potential risk for the aircraft.
- k) By experience it is wellknown that bird flocks scared by falcons sometimes fly up at the approach of the falconers car and set down once again as soon as the flight distance is large enough. This behaviour is repeated.
- l) Literature shows that use of falcons is often combined with pyroacoustics in order to increase the scaring effect. This fact shows that the effectivity of falcons can not be guaranteed.

3. Summary

Based on the results and observations of more years work use of falcons on airports must be regarded as unpracticable and indiscutable.

On some military airfields it may be possible to use falcons during periods without any flight operations if the costs can be reduced or minimized. But by experience birds return a few minutes after stopping falconery.

During BSCE 13th Mr. Dahl (1978) gave a report about scaring methods and to the U.K. procedures is reported: " Some 10 % of UK military airfields use falconry methods, but it is always used in conjunction with one or more of the alternative Techniques. As a technique falconry is successful, but is nevertheless, unacceptable on the majority of airfields, e.g. no UK civil airfield use falcons to date.

For it is impossible to solve the birdstrike problem by falcons as publications in some newspapers say, the BSCE should make a corresponding conclusion. The permanent discussion of falconry in European newspapers since many months induces only confusion and loads the enforcement of other practicable provisions.