

**NATURE CONSERVATION AND FLIGHT SAFETY - A  
CONTROVERSY**

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## NATURE CONSERVATION AND FLIGHT SAFETY - A CONTROVERSY??

Conservation, ecological structures, policy of conservation, converted farm land, expansion, kinds of protection and even ideas on individual protection, all terms used today, both in the Netherlands and in the rich western world. Global environmental thinking directed at the future quality of life on this earth is getting much attention, and rightly so.

Huge environmental investments are made by the business community and the government. Often resulting from environmental legislation with tightened standards, often also by well-understood self-interest. Even bigger investments will be asked from mankind in the future, while prosperity thinking should be replaced by environmental well-being thinking, while limitations to some forms of economic growth will be asked for.

In broad outline virtually everybody is concerned about the care for the environment and accepts the consequences. Whether the role of the Netherlands in the improvement of the environment and protection should be in the forefront and to what extent we, apart from the model function, are actually making a substantial contribution to an improvement of the global or European environment as a result, is an open question for the time being.

It is also an open question whether in Holland, so small, so densely populated and so urban in character, there may still be question of nature other than in terms of living climate and well-being. Living and working calls for a different approach than it does for Antarctica, the rain forest, the oceans and other large scale-entities.

Certain is that the urban landscape, on the one side, and, for instance, the Wadden Sea, the open meadow fields and the Zeeland delta, on the other, fulfil an important function for in particular many bird species as migration, hibernation and forage area. To what extent is it right to emphasise this so much now by establishing reserves, sanctuaries, national parks, etc.?

In general, it is good for this to happen indeed, it is a duty we, as a rich country with a civilised population have to undertake and are able to undertake. However, the country is small and full and many other functions are supposed to be exercised in it. Living, working, recreating with the infrastructure belonging to these functions. All this together makes that man can feel well and is also able to produce the means to preserve this well-being, on the one hand, and to retain or assume the responsibility for conservation, on the other hand. I already mentioned the exercising of many functions. Aviation is one of those functions. It is impossible to imagine life today without the plane.

Considering the nature of this mode of transport, safety has always been an extremely important factor. Now the plane and the airfield have reached a large degree of safety, as a result of which airplane accidents, relatively and absolutely, can be called very low, certainly in comparison with other modes of transport.

One of the safety threatening factors in aviation is the bird strike. The oldest rights are not under discussion in this respect. In terms of construction, very much has been achieved to make aircraft more bird-resistant, but there are limits and impossibilities.

A great number of demands are made in particular upon engines, fuel-efficient and little emission (aire pollution), quiet (noise disturbance), reliability (safety). Sometimes all demands cannot be united. It should be noted, for instance, that the advanced aircraft engines meet the above demands to a reasonable extent. The reliability demand also holds good for the engine being capable of coping with a number of birds up to a certain weight without damage.

Making aircraft engines more bird-resistant is reaching its limits. On the ground, the major Western European and some of the North American airports have reached a bird strike prevention level that can hardly be improved.

Ecological measures, bird scaring and shooting have been optimised. The strike ratios of the above mentioned airports have reached a level of, on average, three to five strikes out of 10.000 flight movements (also dependent on the reporting discipline of the home carriers). Increasing bird protection, taking environmental and nature-promoting measures and the culture following behaviour of many bird species result. in general, in many bird species doing well. Accordingly, it may be argued that the numbers of birds (tonnes of bird meat) per cubic kilometre of air space is increasing (considerably).

Then, if measures yet to be taken by aviation and airports come to an end - bird numbers are rising also with flight movement numbers - a potentially dangerous situation will be arising in the future.

Therefore I recommend to BSCE that:

- A.: the problems outlined above be made a matter of its concern, that these problems be verified with its participants and that recommendations/measures be made or proposed with the authorities concerned.
- B.: the problems referred to above be included in any form whatsoever into the Green Booklet for further evaluation.
- C.: a separate workshop on this matter be started up.

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