

Birdstrike prevention success and malaise in the RNLAF

(abstract)

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1. The Netherlands because of its geographical situation is a delta area very rich in birds and situated at the crossing of bird migration routes. The birdstrike ratio is therefore very high, which is why it is not surprising that the Royal Netherlands Air Force soon after the introduction of ever faster flying aircraft resulting in exponentially increasing damage undertook an investigation into preventive possibilities. After a number of productive years, also in BSCE context, a gradual decrease in alertness and zest set in due to the wide-spread disbelief in preventive measures, particularly in bird migration warnings. A number of main causes underlie this decrease, namely:

- a. Flight restrictions are in conflict with operational interests; so they must be well founded for the pilot to accept and believe them. An initial unwillingness must be overcome;
- b. The effectiveness of preventive measures can only be measured on the basis of statistics and at a longer term. The conclusive force is weakened by the absence of a similar situation without prevention which might serve as reference, and by the fact that military safety officials, types of aircraft and conditions change continually;
- c. Impatience caused by the fact that more often than not evidence is received too late promotes the tendency not to keep up the statistics (reporting of strikes without any damage reflect the biologist's activity). All this especially hampers the argumentation;

d. There is no -

d. There is no time to establish a relation of confidence between the man who issues the restrictions and the one who has to comply with them, because the former always is a conscript (an ensign who does his military service) instead of a regular ornithologist.

2. The RNLAf birdstrikes have been analysed once again, also on the basis of results of an analysis made by Denmark of the correlation between bird migration and the weather. By relating strikes (and damage level) to bird migration and suitable bird migration weather it was proven that the remarkable increase in damage occasioned by birdstrikes (in contrast to foreign countries) runs parallel to the increasing disbelief in and its consequent disinterest for preventive measures. At the same time in the 1966 - 1970 period it appeared to be cost-effective after all. Graphs will be shown in illustration of all this.

3. The Netherlands situation illustrates how matters can water down despite an initial enthusiastic start. It emphasizes the need for a liberal approach with investments that cannot always be immediately judged by their effect. It seems important to make the following recommendations:

- a. A regular official should be appointed, which may guarantee a relation of confidence;
- b. A satisfactory co-operation of an ornithologist, a radar expert and maybe a meteorologist should be established. The nature of bird movements is too difficult a matter to be interpreted by a layman; old theories are to be revised on the basis of recent results of radarinvestigation into bird migration; the effect which the weather has on bird migration has not yet been sufficiently examined so as to come to prediction systems. On the other hand the possibilities to employ radar increase and the biologist grows more dependent on a radar expert;
- c. Bird migration data should be exchanged and standardization should be achieved among the different countries. Prevention systems cannot be more discredited than by a change in bird migration intensities as soon as one crosses the border;
- d. Information on birds and bird movements should be supplied within the organization as a primary condition to maintain faith in the cause.

4. Recent RNLAf analyses of birdstrikes have led to positive policy decision in that at the moment possibilities are examined to set up a research and a restriction system once again. It is hoped that we can closely co-operate with the other BSCE members.