

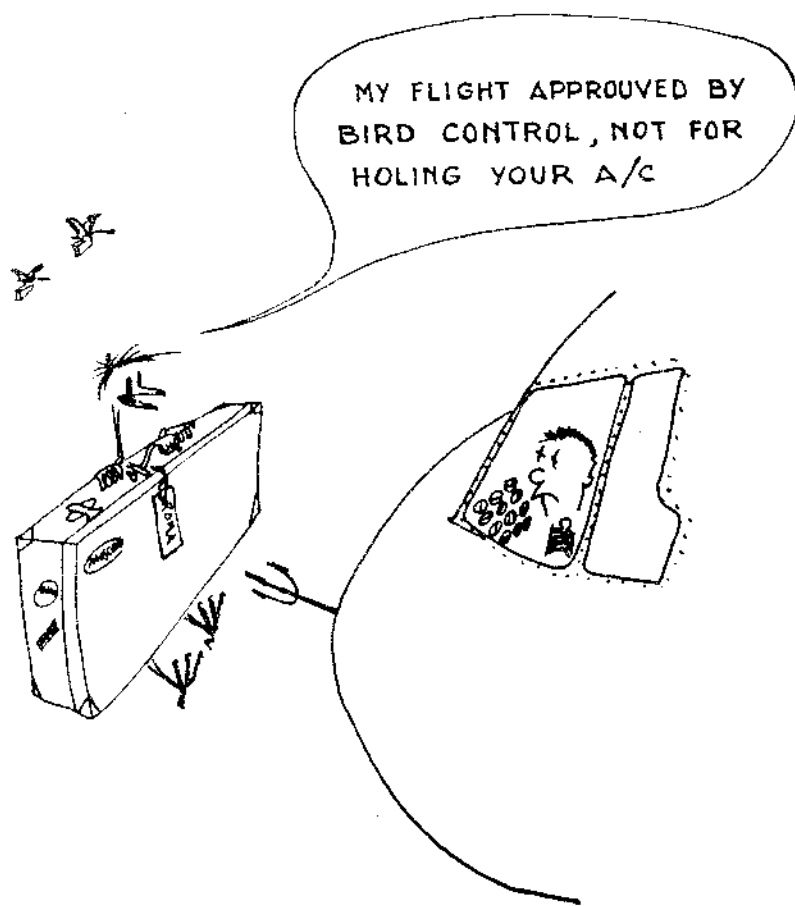
MAY 1973

6. LECTURES RELATED TO W.G. MOYEMENT

6.1. "Result of bird movement working group" by Dr. HILD

6.2. Procedure of Bird-Strike-Warning, Forecast and Advisory
in Germany, by Dr. HILD, W.-Germany.

Bird Movement Working Group



Result of bird movement working group(Lecture held by Dr.J.Hild,GAP)

It was the task of my working group to draw up a set of bird movement- and bird concentration maps for the following countries: Finland, Sweden, Norway, Denmark, Netherlands, Belgium, U.K., Western Germany, France, Austria, Switzerland, Spain, Portugal, Italy and Greece.

These maps should be used as bird hazard maps for general information of pilots and as a basis for pilot's advisory at briefing and flight planning.

The working group consists of representatives of the following countries: Sweden, Norway, Denmark, Germany, U.K., Netherlands, Belgium, France and Switzerland. For the other countries not represented in the working group, informations were available by literature, Biological Institutes or single ornithologists.

It was tried to standardize the maps of the various countries as far as possible. A complete standardization could not be reached because bird movement and bird concentration periods in the single countries are very different.

The maps drawn up now are the result of momentaneous knowledge about bird movement and bird concentration areas; they should be handled as preliminary edition and should be revised as more information and knowledge becomes available.

For all countries there exist two types of maps and that:

1. One bird movement map indicating migration periods, directions and average heights, mostly up to 2000 ft(GND) daytime and 3000 ft(GND) during night. Migration is commonly widespread over a broad front and a movement may cover the length and breadth of a country. A number of sperate broad front movements may be in evidence at any one place and time. Certain topographical features such as coastlines and river valleys sometimes act as leading or diversion lines and the birds are then more concentrated like a narrow front migration.
2. A set of maps about concentration areas(breeding, nesting, feeding or assembling areas) for all months or various periods of the year. Within these areas the greatest birdstrike hazard occurs in heights up to 1500 ft(GND) except in some southern European countries. To each map set belongs a short text giving special informations about bird movements and concentration areas.

The final map drafts were sent to all countries for special use. Moreover some composed maps have been published in the FLIP-book from January 1973. This publication is not satisfactory because value of information is less. The discussions in the working group have shown that it is impossible to combine maps of various countries and for different

periods. We have to discuss the publication problem once again within the next year.

I can show you some samples of maps as well as some examples of investigation results - radar observation of bird movements - which were the basis for drawing up bird movement maps.

The future work of the working group will be to discuss problems of short-scale bird movements which endanger the air traffic in the surrounding of airfields and airports. I think it could be useful to get a collection of maps from the airfield surrounding indicating bird concentration areas, movement routes, heights etc. as I can show you by some special German maps.

Moreover it will be important for the working group to study relations between bird movement and weather/met.parameters. Perhaps it will be possible, in future, to give more detailed weather/met.informations in the bird movement maps.