

Working paper No. 12: Proposal for a joint project about global bird strike analysis between members of the Bird Strike Committee Europe and members of the International Society of Biometeorology.

by Helmut Lieth, University of Osnabrück,
President International Society of Biometeorology

As stated in the various reports of this committee, bird strikes are one of the more serious problems of aviation. Several of the speakers at this meeting have pointed to the fact that the problem has technical and biological vectors both of which need investigation to reach maximum efficiency in bird strike prevention.

In many countries of the northern Hemisphere the situation has been investigated to the point that biological parameters were incorporated up to the maximum level presently possible. Civil aviation, however, covers the entire globe. In tropical regions, where the biological vectors are far less investigated than in North America or Europe, the existing flight safety problems are expected to be more stringent than in the temperate zones. Not only can we expect the same level of hits by migratory birds, as is experienced in the northern latitudes, but also an increased level of birdstrikes by locally resident birds in number and severity because the number of bird species increases towards the tropics, as does the size of the birds. Reports of big birds like vultures downing small planes are not infrequent, and birds moving about in huge flocks are known for many regions.

Since European and North American Airlines fly in such areas, the Bird Strike Committee Europe should become involved in an intensive study to synthesize bird strike statistics globally and analyze them in the frame of biometeorological parameters to reach predictive models for the biological aspect of the problem.

As in national studies, the committee members interested in this study will have to rely on biologists for the field data on birds. These scientists are generally organized in ecological, zoological, ornithological, and biometeorological societies. As a member of the International Society for Biometeorology I suggest the organization of a joint project to study the biometeorological aspect of the bird strike problem globally. A joint effort should be undertaken to develop a global study group, the activity of which could be tutored jointly by the Bird Strike Committee Europe and the International Society for Biometeorology. Initial steps in that direction have been taken by Dr. Hild of the Bird Strike Committee and the author of this paper.

References:

- Hild, J. 1980: Use of animal and plant phenology for flight safety. *International Journal of Biometeorology* 24, 217-222.
- Lieth, H. editor 1974: *Phenology and Seasonality Modelling* 444p., Springer Verlag New York.