

MAY 1973

Procedure of birdstrike warning , -forecast and - advisory in GAF

(lecture held by Dr. J. Hild, GAF)

The birdstrike warning system in Germany is based on visual and radar observation of bird movements and must be subdivided in a local and a regional warning.

Local warnings are given on the basis of visual or radar observation of birds in the control area of the single airfields by the meteorological people. Air Traffic Control has special regulations in case of observed bird flocks and can stop take off and landing for a short time. This system must be improved by better GCA-Radar methods. The regional warning system is based on visual and radar observations which are worked up in a central evaluation office regarding season weather situation , single meteorological parameters. There exist there types of regional warnings.

1. Long-term bird movement forecast (Annex 1), published every 14 days or monthly. This forecast is transmitted to all meteorological centers in Western Europe and by ATC-network.

Procedure on airfields :

- Interpretation during weather briefing from time to time -
- Placard in briefing room , at Basops and in staffs together with bird movement maps -

The forecast has to replace birdtam in case these are not available ; it is only used as general information without obligation for the pilot.

2. Birdstrike Risk Forecast (validity 24 hours); published every day at 1600 P.M. ; transmitted only by weather network to all meteorological centers in Western Europe.

Text form :

Eight birdstrike risk in BRD area

or f. i;

Moderate/heavy birdstrike risk in coastal districts and south of Danube river up to 40000 ft(GND) especially between 07.00 and 14.00 (MEZ). Increasing risk may occur with cold air spells in N-Germany. Valid from march 24th, 00.00 until march 25th, 24.00 (MEZ).

Procedure on airfields :

- Interpretation at weather briefing in case actual birdtam are not available -
- Information at flight planning -

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These forecast serve as information and should bring attention of pilot to a possibly increasing risk.

3. Birdtam ; they are published in case actual bird movements are observed (more than intensity 3) ; transmission on weather- and ATC-network round the year and round the clock.

Text form :

Bird movement over hotel hotel, hotel golf etc.
Up to 2000 ft (GND) - or "between 1500 and 3000 ft (GND)-
valid from 08.00 until 12.00.

The regulation to publish birdtam only at intensities more than 3 or 3 increasing was necessary in order to regard the various capacities of radar- equipments; these various capacities are regarded at birdtam-publication by giving to the radar stations special intensity standard fotos which refer on the technical state of the stations. The indication "hotel hotel " according georef had come out true by the difficulty for the flying units to define endangered areas at indications like "northern Germany ". Indication of georef areas is made by regarding bird movement direction, speed ; Generally the validity is 4 hours.

Procedure on airfields :

- Information of staffs and basops by phone -
- Interpretation during weather briefing -
- Consideration at flight planning -

Birdtam are obligatory for all pilots ; low level flights in corresponding areas are not allowed (a few special exceptions).

Within the next two years we hope to come to an EDV-forecast or warning which is based on some hundred thousands of bird movement and weather datas. We think to publish then two or three times the day bird movements warnings with a better information value.

Annex 1

Form of long-term bird movements forecast

Subj. ; Bird movement forecast

Period : march 1st until march 15th.

1. Increasing bird movements from S direction N and NE in areas north of highlands
2. The following bird movements may be expected :
 - Crane migration from SW, direction NE, up to 8000 ft (GND) - see map-
 - Small bird migration especially during night up to 3000 ft(GND) all over Germany -
 - Waterfowl migration in coastal districts, day and wight, up to 5000 ft (GND) -
3. Strongest movement intensities between 09.00 and 11.00(MEZ) as well as between 16.00 and 24.00 (MEZ).
4. In airfield areas resting flights of migrating lapwings, starlings and thrushes may be expected especially in: the early morning and late afternoon hours.
5. During low level flights of helicopters in agricultural areas birdstrike risk will increase.
6. Bird movement is favoured by the following meteorological parameters :
 - Southern air currents -
 - Mild, fair spring weather -
 - Clearing up after a period of days with heavy precipitation -
7. Range areas in Belgium and Netherlands have special restrictions at high bird movement intensities.
8. Actual bird warnings are published as birdtam.