The practical use of bird migration warnings

(some proposals for better cooperation between countries)

L.S. BUURMA

Royal Netherlands Air Force

introduction

Next autumn the RNLAF will start experiments with an electronic counting system on a full operational radarstation in the north of the Netherlands. This means a big step forward after more than two years of more or less improvisational detection of bird migration with the help of polaroid photos taken from the screen of a small airport radar with several technical failures. Parallel to the introduction of this new system, called KIEVIT*, we think the time is right to discuss again the practical use of the measurements, the way of dissemination of messages, and especially, how to cooperate with other countries in the future.
We feel an even stronger urgency for this after long discussions with fighter pilots. Many of them are not convinced the system works in a proper way because of several regular occuring distinct discrepancies between birdtams from neighbouring countries. Pilots don't believe that birdmigration stops or starts just at the borders and I have to agree with them. Apart from this, different phraseology, frequency of delivery of messages and the wide variety in flight restrictions, can easily result in different interpretations or even opposite actions by different airforces in the same area.
It is not my intention to bring in discussion flight restrictions, because they depend on many other operational considerations and therefore, they should be discussed within the Airforces Flight Safety Committee Europe. Further, I don't want to repeat the work already done within the communication working group concerning transmission networks and speeds. There are some more basic aspects of the birdtamsystem that raise problems to us. I want to focus your attention on the following questions that - we think - should be answered before the RNLAF embodies new procedures, especially when occasion arises due to the introduction of the new system.

* KIEVIT: The dutch name of the lapwing (Vanellus vanellus), but in this case the abbreviation of "kast met integrale electronische vogeltrek intensiteit tellers", what means: "box with integrated electronic birdmigration intensity counters".

questions

questions

1. Is it necessary that the information is to be given as rough as possible, or, do we have to provide interpretations? In the first case, we expect the pilot himself to combine the data and to draw the operational conclusions. On the other hand, we can produce such integrated data that the pilot has no escape possibility and can only choose whether or not to follow the appropriate rules. In case of the presence of a complete network of permanent stand-by long range suveillance radars with birddetection capability, the above mentioned possibilities come close together. But, as soon as different sources of migration (for example, field observations and radar data, or the combined use of different types of radar) are used, a difficult interpretation proces is necessary. In my opinion this can not be left to the users. In such cases it is better to formulate the outcome as simply and short as possible to avoid discussions on basis of partial information.

2. Is an international consultation before delivering high bird migration intensities possible? A simple telephone procedure, at least between neighbouring countries/stations, could be an important help to avoid contradictory warnings.

3. To avoid unwanted private interpretations one could include only the really relevant data for the pilots in the "ad hoc" birdtam, and leave out such details as bird species, flight directions and speeds. For direct operational use the last mentioned data are of low value, and in practice, they are also only partly known. For educational purposes one could perhaps defend the inclusion of the extra biological information. But, as far as I know, these data are not really measured "ad hoc". Generally speaking, they are taken from the average knowledge of ornithologists. Therefore, they can better be collected in a handbook with a fixed new page for every week or fortnight. Eventually, they also can be distributed by teleprinter, as is done in Germany.

4. Much confusion has been created by the differencies in the use of geographical indications. Some small countries simply declare the validity applicable to their whole territory. Larger countries either use "gebiets" or mention only the station without indications for a certain area.

the actual situation

To illustrate the actual situation "an average example" of the actually used messages in Western Europe (as received by teleprinter in the Netherlands) is brought together in the appendix.

The clearest thing is that item d, t and g of the format, as described in the AIP are not filled in. Only some irregular messages appear with data about species, flight direction and speeds.

When the technical registration possibilities are present, height information is available.

Most countries deliver messages in case of intensities above a certain value. It is not always clear what happens when there is no message: no news, good news?

The geographical indications of Germany ("georefs") are always connected with one intensity, so, if some are indicated 7, there is no information on the remaining georefs, except that they are less than 7. Belgium, on the other hand, gives two regions and mentions for both the intensity of birdmigration.

proposals

1. In "ad hoc" warnings, as a rule, only data should be given that are measured also ad hoc.

2. General information on species to expect in a certain period, weather conditions that stimulate their movements, and regions they pass, should be compiled into a handbook.

3. If height information is available as a rule the level below which 90 percent of the birds fly should be indicated.

4. For better cooperation a choice should be made between the different ways of geographical description; the indications used by the different countries should be linked up.

5. If something is changed, a short description of birdtam issue procedures of the different countries should be distributed, including a list of station addresses and telephone numbers.

Norway

nnnnzczc hya060
ff ehmryx
171025 ehmcyo
bird migration wng norway
a. maakeroey
b. radar
c. 17050830
d. xx
e. 6
f. moving north
g/h/i/j. xx

Denmark

nnnnzczc hya043
jj ekchyn egvcyo eggnyn edaayo edeeyo ednhyo ehmcyo ehzzne ehmryx
100700 ekmcyo
birdtam a/vordingborg 5501n 1155e b/radar c/100700z oct 77
d/xx e/8 f/xx g/xx h/xx i/xx j/xx

West Germany

nnnnzczc hya015
dd ebszyo ehzznh enfbyn ebmiyo ehmryx ekmcyo
222026 eddzyc
msg nr 1918
c /088 notamn bremen/frankfurt fir nav warning.
birdmovement intensity 6/high up to 30000ft gnd
over kilo golf, lima golf,
kilo foxtrott 3+4, lima foxtrott 3+4
til 22042200.

Netherlands

nnnnzczc nya071
gg edzxyt edukyo ehmryx ehzznh ebbryr ebmiyo ebszzp lfzznh
190920 ehmcyo
bird migration warning netherlands nr 93
a. ypenburg 5200n0422e
b. radar
c. 19100910
d. xx
e. less than5
f/g/h. xx
i. valid ufn

France

nnnnzczc hya038
ff lfpsyh lfzznh lfpjyrcd lfmmyo ehmryx
110/21 lfboyd
bird warning nr 56/bo
a/aerodrome de toulouse blagnac
b/radar
c/11/10/0/00tu
d/inconnu
e/forte - plus de 40 formations visibles simultanement
f/ssw
g/50kts
h/presume superieur a 5000 ft
i/xx
j/xx

Belgium

nnnnzczc hya078
dd egzmkk edzxyt ehmryx
211515 ebmiyo

birdwarning ///44
a ebszzp
b radar
c 21041100z
d xx
e 8-land 2-coast
f ne
g xx
h 5000ft agl
i valid 2h