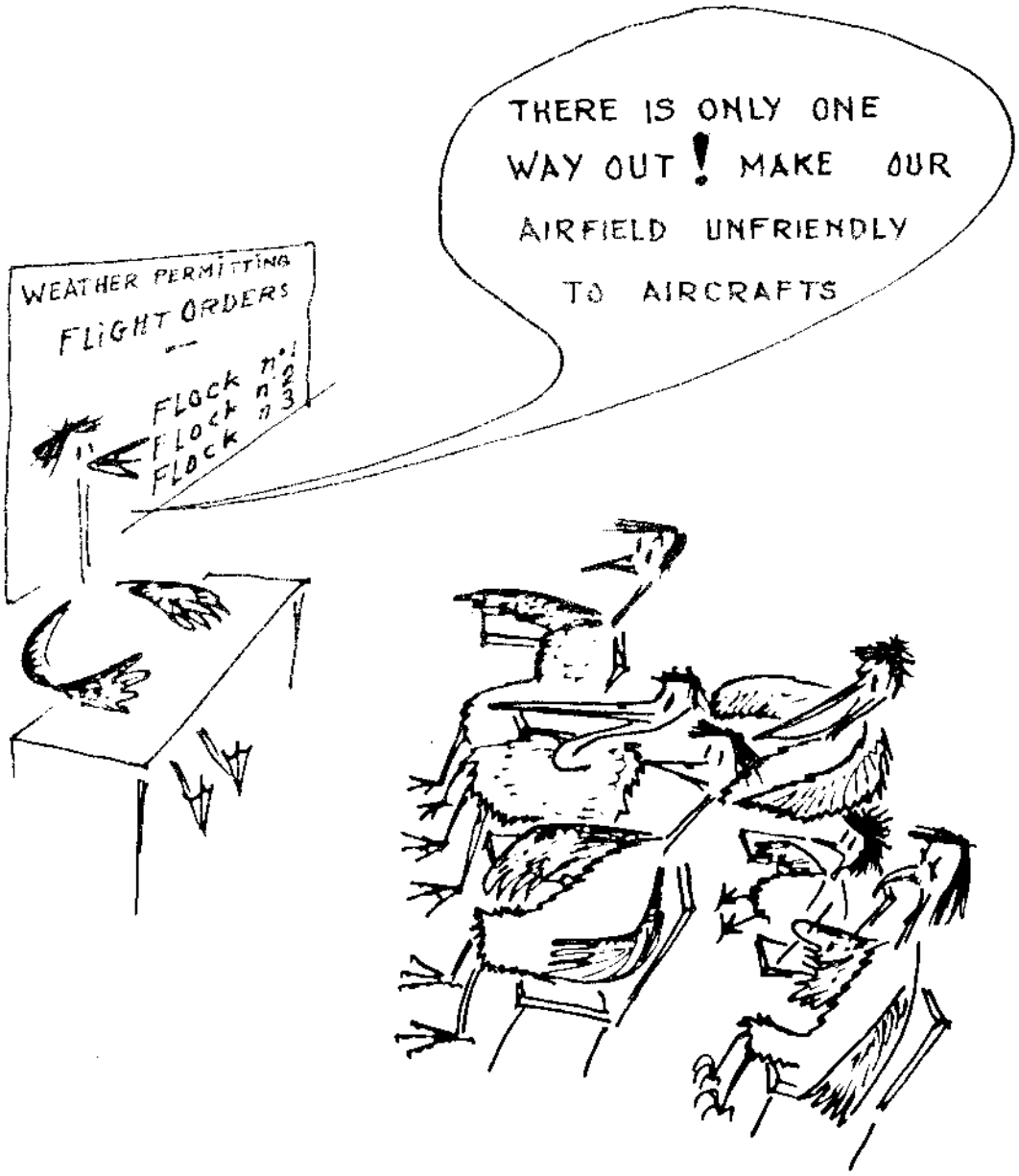
5. LECTURES RELATED TO W.G. BIRD/RADAR/WEATHER

5.1. "Bird Migration forecasting" by Mr. LOUETTE

5.2. "The Use of a Regression in Forecasting Bird Migration, and the Choice of the Variables in the Multiple Regression Model", by Lt Robijn, Belgium.

Bird Radar Weather Group



In order to establish a prediction model for bird-migration,we used the method of multiple linear regression. The first point of this paper provides a brief summary to theoritical considerations on the multiple regression model,to make more easily the understanding of the paper,as to notation and vocabulary.

On the last meeting of the Bird/Radar/Weather Working Group,Mr. Houghton said that all workers probably needed more experience in the use of different kinds of multiple regression to develop the best method for successful bird movement forecast.

Therefore,the rest of the paper attempts to give an answer to the following questions.

1. Can we reduce the space of variables without loosing information,how can we automatically eliminate redundant variables ?
2. How do we consider the correlation bird-movement versus meteo ?
3. Which methods of multiple regression can we use ?
4. Can we use the multiple regression model as a prediction tool ?

It would be very interesting to know if someone else would try to use the methods explained in this paper with their data. I can provide information as to the employed programs (written in FORTRAN IV and used on IBM 360/75) as to the theoritical considerations.

However it is possible that bird migration is dependent on "weather" without the possibility of explanning it in a linear regression form. The aim is to find this dependence. It is not excluded that with this information,other methods (of which Mr. Louette is reporting) become valuable for prediction.