BSCE 20 / WP 2

Helsinki, 21-25 May 1990

BIRD CONTROL AT GENEVA - AIRPORT

Mr. Jacques FRITZ

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Geneva Airport Authority, Switzerland

INTRODUCTION

Geneva airport is located about 4 km away, as the crow flies, from Lake of Geneva. Numerous species of birds live in this area and watching them is always a wonder. But we must add that we very much prefer to see them as far as possible away from our 3900 meters concrete runway on which some 345 aircraft movements are everyday.

BIRDS

The most numerous problems come from the black headed gull and its kin the common gull. They usually appear in great numbers at the end of Fall and during the rainy days of Winter.
Looking for worms they fly around in flocks and alight on the grass or even on the runway.
Over a year, there are about 60 to 70 days of real trouble, during which we have to fight away these birds. We also have all year round visitors such as crows, ash-grey herons and buzzards.

AGRICULTURAL MEASURES

Since the seventies, the Airport Authority has developped various measures to set up an efficient control in order to prevent bird strikes.
As far as land under cultivation is cand intensity concerned, growing cereals is not allowed nor is the use of organic dung with straw and liquid manure.
Grass is cut twice or three times a year, down to 12-20 cm, according to the recommendation of the Swiss Federal Office for Civil Aviation (FOCA).
Regularly a specialist - what we call in French "taupier"(mole-catcher)- inspects the grass area of the airport and traps animals like moles, mice, etc,... the usual daily favorite menu of buzzards and herons.

ACTIVE CONTROL MEASURES

Constant bird watching and chasing are part of the duties devolved upon the Apron-Tower staff together with "follow-me" cars personnel.
In the past years, conventional equipments were used like loud- speakers installed on the roof of a "follow-me" car, transmitting with a portable tape recorder, gull distress calls as well as with pyrotechnics like birdscaring cartridges Shellcrackers, fired from barrelpistols.

Coming now to the unpleasant measures, we have to mention that exceptionally, from time to time, we are compelled to shoot gulls, but only in case of necessity. In those cases specialists from the Geneva Fauna and Forest Departement come to the airport and catch or shoot the undesirable birds.

RADIO-CONTROLLED BIRD DEFENSE SYSTEM

18 months ago, Geneva airport has been equipped with a controlled bird defence system developed by STEFFAN Gmbh in Dexheim, Germany.
It consists of a central transmitting station and, according to the airfield's size, of a variable number of sound generators which can be operated independently or in groups; each sound generator has four pipes producing a four-fold bang (quatro-bang). This device is operated by a ground traffic controller at the transmitter, situated

in our APRON TOWER. When birds are approaching or have already alighted on the airfield, the individual sound generator or the group of sound generators placed in such a way as to cover strategic positions on the airfield, is released by push button.
40 generators have been installed, 20 on each side of the concrete runway, at a distance of 75 meters from the center-line and each unit being 200 meters apart from the next.
The compact-units are equiped with special long-life accumulators energized by a solar panel, and each of the four fireing chambers are provided with acetylene gas bottles fitted in plastic containers in the ground.

The advantage: we can operate exactly where and when we want, as long as we want.
Efficiency is optimum as birds cannot get used to the device because of the flexible operating times and of the highly flexible sound intensities ranging from 25 cycles per second to 2,5 cycles per second; sound pressure level of a detonator at a distance of 10 meters, is 120 db.

FUTURE MEASURES

Together with other Swiss airport authorities - Zurich for example - we believe that the farmers in the immediate vicinity of the airport should be better informed so as to know what crops can sawn the bird strike problem in order to discourage our companions the birds.

We think that bird defence systems should not only be set up "on the ground" if I may say. Aircraft should also possibly be equipped with some system which would reinforce the actual measures.

For that reason we are fully supporting studies and tests done by Swissair DC-10 Captain R. STEFFEN, in order to build up a new equipment using an optical signal to catch the birds attention and giving information on direction and speed/distance of the aircraft.

This system called ABC-Light (Anti-Bird Collision Light) consists of two strobe lights mounted approximately 5-25 meters apart on the wings to give direction information. Both lights begin to flash with increasing frequency during the taxiing for take-off, whereby an acceleration is simulated and attention increased up to 200 times; it is also used for the approach and landing, the frequency of the flash is reduced showing a speed reduction.
Swissair is interested in this system and ten of their DC-9 will be equipped in the near future, in order to see in practice what hundreds of take-offs and landings have shown during test flights.

CONCLUSION

I would not like to conclude without thanking all the organizers of this 20th BIRD STRIKE COMMITTEE EUROPE for their efforts in preparing this meeting and allowing us to exchange our experiences. Let me once again underline how important it is to cooperate in harmony with Nature and our dear friends the Birds.

J. Fritz