

that a final decision is reached both in Canada and in the United States particularly, before we enter upon any expenditure for comparable equipment in the aircraft or on the ground.

Mr. FULTON: Is it at all correct to say that the ground communication facilities would all be substantially those of the Department of Transport, whereas the equipment which is installed in the aircraft would be your own? Is that the division of responsibility?

Mr. MCGREGOR: No, not entirely. Certainly the Department of Transport's investment in ground communications equipment is greater than ours, but we have at our major stations our own ground communication equipment which is used entirely for the transaction of company traffic between the ground and the air.

Mr. FULTON: And that equipment is separate from the Department of Transport?

Mr. MCGREGOR: Yes. We would not be allowed to communicate over Department of Transport facilities such information as the load of the aircraft, the reservations requirements, and so on.

Mr. FULTON: Who maintains the beam flying?

Mr. MCGREGOR: The Department of Transport.

Mr. FULTON: Do they operate on the same frequencies with respect to communications as do the aircraft?

Mr. MCGREGOR: No. Range transmitters and associated aircraft receivers use frequencies for that purpose.

Mr. FULTON: Then you have to have two sets of receiving equipment in the aircraft?

Mr. MCGREGOR: We actually have more than that; but we also have frequency changing facilities in the receivers. There are something like 13 channels of frequency available for reception in our aircraft at the present time.

Mr. FULTON: Do you have the one receiving set which operates on two frequencies, which means that the pilots or the captains have to turn from one frequency to the other, or do you have two, each operating on its own frequency?

Mr. MCGREGOR: The range receivers are separate. But actually the number of channels on which each receiver is capable of receiving is numerous.

Mr. DREW: Perhaps my next question would come inappropriately at this item, although I recognize from what you say that the actual expenditure is made by the Department of Transport. What progress is being made in the provision for blind landing?

Mr. MCGREGOR: Very good progress. As we have said before, ILS installations are completed across the country in respect to the major airports with the exception of Victoria. The effect of that has been to reduce what are known as the "limits" involved very considerably, and thereby to increase the regularity of flight operations.

Actually, the progress in the reduction of limits is on a very conservative basis as compared to what might be possible. Aircraft could be landed without any reduction in the factors of safety at even lower limits of ceiling and visibility than are now being observed; but we are making haste slowly; this is excellent policy and one which I think should be adhered to.

Mr. DREW: Has any modern adaptation of fido been employed in such airports as Gander or Sydney where there is a fairly high fog problem?

Mr. MCGREGOR: No. Fido and its more recent variations have been experimented with in California. It is by no manner of means an entirely desirable cure. In the first place, its cost is quite fantastic; and in the second place, there are hazards involved. For example, when an aircraft lands on a runway in