

Supply—National Defence

it can be argued that this house should be told this sort of thing directly and not have to get information from the press with regard to such large expenditure which apparently was a mistake on the part of those directly concerned with defence research.

Mr. Claxton: I have seen the article and also I am generally familiar with the situation. What happened was that in 1945 and 1946 the United States and Canadian authorities felt that it would be desirable to establish a chain of loran stations in the far north. This method of obtaining navigational fixes has proved successful in places farther south. The initiative in this regard was not taken by the Canadian government, but we co-operated. This method of obtaining a fix had never been tried in the far north.

It involved the measurement of signals sent out thousands of miles in millionths of seconds. By sending out a message to an aircraft from a tower and measuring the time of the "echo" from that tower with the time of an echo from two or three other stations it may be possible by measurements running into the millionths of seconds to determine the exact position of the aircraft. As I said, this has been successful in other parts and there was no way of telling whether it would be successful in the far north until it was tried there.

It was tried, and while there was a moderate degree of success it was not considered sufficiently reliable all the time to justify its continued operation at very considerable cost in peacetime. Conditions might change at some future date or there might be developments in the art itself, to justify its resumption. At the time it was considered very urgent that these stations should be established. A considerable amount of work was done by airlift. That airlift was largely supplied by the United States. We did not have the aircraft to do the whole job. A relatively small proportion of the expenditure was due to our using Canadian aircraft. My information is that it would have been possible to supply them by ship but this would have meant a year's delay which was not considered desirable.

The decision to discontinue the use of these stations was made only recently. As a matter of fact I sent to the United States authorities, in accordance with our arrangements, a draft of a statement to be made jointly by us announcing the discontinuance when, through some source or other, the statement appeared in the *Standard* to which the hon. member has referred.

The cost to Canada of the whole operation was nothing like the figure suggested in the article. It is not possible to segregate the

cost because air force equipment and personnel were used from their general resources. A large percentage of the material, transportation and equipment was supplied by the United States.

In terms of defence the cost was not a very great sum, and there was no way of arriving at the decision not to do it unless we tried it. It proved unsuccessful because of ionospheric and other conditions which make radio communication exceedingly difficult. In the whole area running north from James bay through Hudson bay and spreading out to the northwest particularly, radio communication is probably more difficult than anywhere else in the world owing to electrical disturbances and other causes which we are investigating all the time. Without trying the experiment, it was not possible to ascertain that it would not work. The effort was made, was partially successful, but not sufficiently so to justify its continued use in peacetime.

Item agreed to.

Pensions and other benefits—

214. Government's contribution to the permanent forces pension fund, \$10,799,600.

Mr. Noseworthy: Mr. Chairman, I should like the minister to give a short explanation of this item, particularly as to the differentiation made in the payment of pensions to retired officers with more than ten but less than twenty years' service. I have had considerable correspondence from officers in that category living in my constituency. I understand a considerable number of officers in that class were retired after 1945. The feeling among many of them is that those who were retired were men who secured their commissions during the war while most of those who were retained in the forces were in the professional class, that is, graduates of military college. Can the minister tell us how many with more than ten but less than twenty years service have been retired since 1945 and the numbers of professional and non-professional soldiers? I should like to know how many were men who received their commissions in the field and how many were professional soldiers, graduates of military college.

My information is that those with more than ten but less than twenty years' service are broken down into three categories. First, there are those who were discharged as medically unfit and who receive full pension. Second, there are those who have reached the prescribed age for their rank. There is some uncertainty as to whether the date of retirement is the date the bill was passed, the date they were discharged or the date the