

as well as cars. We have, I believe, on one occasion in connection with one exercise, worked with the railways to develop a plan for using a train. Except in that respect we have not had trains standing ready and we do not have trains standing ready now.

Mr. ARGUE: I have further matters I would like to raise. I have read some of the literature put out by the civil defence organization. I have read other articles on the dangers of nuclear attack and so on. It seems to me in the civil defence literature there is little by way of recognition of the hell there would be across this country in the event of a nuclear attack. I would think in the educational documents put out there should be some factual scientific information as to what nuclear attack would in fact mean.

I ask, if one of the large atomic bombs should fall on one of Canada's largest cities, what proportion of the population would be killed outright? What proportion of the population might die from radiation effects within a week, two weeks or over a period? In other words, what would a nuclear attack mean to Canada? I think it would destroy the nation. I think we are talking about civil defence to keep some semblance of civil activity in being, but I think the nation would for all practical purposes in the case of an attack be discouraged. I would like some comment on what it would mean to Canada in lives lost and the state of our nation in the event of such an attack.

Mr. BRYCE: One could make all sorts of calculations by postulating the number of weapons that would be dropped on Canada, where they would land and at what height they would go off. All these affect the calculations.

The United States made an elaborate calculation of this kind which was placed before congressional committee last year. In our case there are some complicating aspects. We are not so apt to be the primary target. It is much harder to guess where weapons would go off.

While the threat is from bombers to a considerable extent, we have to anticipate a considerable part of the danger in Canada would be from the weapons in planes which come down as a result of the air battle. We cannot tell where they will come down except in a rough sort of way. It is more apt to be in Ontario and Quebec than the east or west. We have to be prepared for a rather illogical pattern of weapons in this country.

Mr. ARGUE: My question is more specific than that. Suppose there were 100 cities over which a modern atomic bomb were exploded on this continent and five of those cities happened to be the five largest cities in Canada, what would be the effect to those cities and to this country?

Mr. BRYCE: We could calculate that for you, sir; but I think it is fair to say that if those were large weapons there would probably be millions killed and more millions injured. However, a considerable fraction, probably more than half of the Canadian population, would be left to carry on. Now what the effects of the radiation fall-out would be is another matter. If we are unprepared for it, there would probably be more millions killed by radiation; if we are prepared for it, there would not be more millions killed by radiation.

Mr. ARGUE: Have some of these facts been put out to the general public, namely elaboration of the statements you have just made, that in the case of an attack there could be up to or approaching half the Canadian population die either by direct result of the explosion or by radiation? It would seem to me that an accurate but picturesque description of what the conditions would be in Canada in the event of a nuclear war is essential to a civil defence organization and is an essential part of the education of the Canadian people at this time.