knocking out key communications systems because these are crucial to the U.S. deterrent.³ Others mentioned the "precursor raid", where adversary bombers would aim at knocking out North American command and control centres as well as communications systems and other vital installations so that U.S. and Canadian forces would be decapitated, confused, unable to obtain orders, and incapable of retaliating.

Professor Douglas A. Ross remarked that

the best operational rationale for the prudent minimum of deployment within NORAD is looking after the contingency of a precursor strike. Essentially, I think that can be handled with fixed site radars, which are much less expensive, obviously... I think the northern warning system, NWS, which I believe the Canadian forces are proposing at the moment for the far north, the B.C. coast, the Yukon coast and the Labrador extension would be adequate to cope with a precursor strike, because it is in that scenario that we are taking some insurance against a limited Soviet bomber force striking at American command and control systems. That, I think, is about the only contingency against which we should buy insurance for continental defence.⁴

Later, Professor Ross stressed that

if one is trying to reduce the risk of accidental war...the precursor threat must be addressed...For that reason...we need an upgrading of our warning system especially, but the accent must be on warning and less on active defence.⁵

In a further comment, he contended that

if, indeed, a decapitation strike were going to occur with 50 to 100 warheads, it would come from Soviet submarines offshore, much closer to their designated targets. They would not be coming (in) bombers over the Pole. But one has to foreclose that possibility. If there were no radar perimeter, then that obviously would be an option they would have. One wants to foreclose that.

The Need For Land-Based Deterrent Forces

Anti-bomber defence is linked to another basic question: why should we have anti-bomber defences, strategic bombers, land-based ICBMs, or other parts of the present massive deterrent forces when a few nuclear submarines can carry enough missiles and warheads to devastate the Soviet Union or North America? For example, it has been suggested that Soviet submarine-based missiles alone would be enough to destroy every city in the United States with a population of 10,000 or over, and it was stated in a recent article dealing with the same point that the destructive power contained in one nuclear submarine of the British Royal Navy equipped with Trident II missiles "could eliminate the USSR as a major power." However, relying on a limited number of nuclear submarines alone assumes that

³ *Ibid*, 1 February 1984, p. 1:21.

⁴ Ibid, 8 March 1984, p. 3:27.

⁵ Idem.

⁶ Ibid, p. 3:28.

⁷ G.M. Seignious II, and J.P. Yates, "Europe's Nuclear Superpowers", Foreign Policy, No. 55, Summer 1984, p. 44 (ISSN 0015-7228).