In Canada, proposals have been made to develop lower-powered SBRs, capable of imaging aircraft but not cruise missiles.[26] The advantage of a Canadian SBR of this kind would lie in its ability to monitor all aircraft operating in the Canadian Arctic, and possibly off the East and West coasts. It would offer greater survivability (though it would be eventually vulnerable to Soviet anti-satellite weapons (ASATs), greater coverage of the interior of Canadian territory, and economic and technological benefits to Canadian industry. The cost of a small system, assuming a minimum of four radar satellites and an equal number of military communication satellites, might be in the vicinity of $1.5 billion, or, as the leading proponent of the system has argued, $300 million per year until the system was in place, and a lesser sum thereafter for replacement satellites. The system here envisaged would be within the capabilities of Canadian industry, although, for the most part, it would rely on the launch facilities of the United States or, perhaps less likely, France.

It is, therefore, a case which must be taken very seriously. At the same time, the proponents of a Canadian SBR are faced with some serious questions. The first concerns the place of the ABM Treaty. Within the terms of the Treaty (Agreed Understanding F), phased array radars are permitted only at designated sites; elsewhere, they are permitted only if their power potential does not exceed 3-million square metre watts. Even if the SBRs contemplated were within that limit, a Canadian SBR might be seen as an indirect opportunity for the United States to evade the Treaty. It would be understandable, for example, if the Soviets suspected that a Canadian SBR within the terms of the Treaty was the precursor to a US radar which was not, a suspicion which would probably be more firmly entertained if there were considerable US co-operation in the Canadian development programme, as might well be the case. Moreover, it would be difficult to rule out the possibility of an add-on power potential which might give the United States an immediate capability in any future break out from the Treaty. Canada is not, of course, a signatory to the Treaty, but the Treaty itself contains a 'non-circumvention' clause (Article IX) which clearly imposes some political constraints on third parties who otherwise profess to be in favour of the Treaty regime.

Second, the national SBR proposal rests on unbuilt technology and unconfirmed costs. Generally, it is not clear that a country as small in population as Canada, and with a small military budget, can afford to take risks in development programmes. Both the efficacy and the cost of the programme would require detailed investigation if SBR were to become a serious contender. In that sense the opportunity may have passed with the decision of the Government to sign the NWS. Further consideration of a national SBR, therefore, might now be dependent on a US decision not to continue with the second phase of NWS, or on the emergence of political factors which give greater political impetus to national surveillance of the Arctic.

[26] See B. Gen. John J. Collins, OMM, CD, (Retd), "Military Use of Space by Canada in the Year 2000", in *Canadian Aeronautics and Space Journal*, Vol. 32, No. 3, September 1986, pp. 193-201.