

additional costs would presumably fall to Canada, since there is no obvious military advantage to the United States in this change. In current US planning, AWACS aircraft based in Alaska and Greenland would fly occasional patrols north of NWS (and therefore over the Canadian Arctic islands), with the expectation that in times of increasing crisis those forces would be progressively augmented. It is also proposed for symbolic reasons to allow Canadian military personnel to participate in such flights. There is little US advantage, therefore, in incurring the additional costs of relocating the NWS further to the north.

By contrast, the Canadian interest in relocation is not in providing greater protection to US retaliatory forces, but in ensuring adequate surveillance of its own territory and in preventing, *de facto*, a situation in which only the United States has such a capability. One must assume, therefore, that the motivating factors in the decision not to locate NWS further to the north were cost, as well as the relative lack of interest of the USAF in the military advantages of a more northerly deployment. More remotely, perhaps, US intelligence may simply have misjudged the ability of the Soviets to achieve the long range of the AS-15, in which case cost considerations would have been unchallenged. Curiously, despite the enormous public and Parliamentary attention focussed on the NWS decision in Canada, the actual operational merits of the proposal, which emerged from the Joint US-Canadian Defence Study (JUSCADS) in 1979, have received little attention. Specifically, the total cost (\$1.29 billion) has not been broken down, and the detailed costs of deployment further north have never been explored in public discussion. Nor is it clear that the Canadian team pressed the enquiry in these terms, or that this was the preferred Canadian option.

B. Airborne Warning and Control Systems (AWACS)

In order to patrol both the interior of Canadian territory, which is currently not covered by national surveillance systems, and to allow adequate national coverage of the Canadian Arctic, the Canadian purchase of AWACS is occasionally cited as a technically and politically desirable solution. AWACS, however, is not a substitute for other systems; the combination of AWACS and a system less expensive but in continuous operation (either NWS or Space-based radar) may be attractive militarily, but raises familiar problems of capital procurement.

The essential difficulty with AWACS is the procurement and operating costs. The cost of the Boeing E-3A, for example, the most expensive but probably the most capable AWACS, including support costs, is in excess of \$200 million per copy (In December 1986 the British Government announced a purchase of eight at a unit cost of US \$160 million). The operating costs are claimed to approach \$25,000 per hour. Since the radar radius of the E-3A is around 200 miles (although it is probable that cruise missiles could be tracked only at distances much less than that), it is estimated that minimal coverage of Canadian territory would require 4-5 aircraft. These costs can be reduced, allegedly by up to 50 per cent, by