

c. Canadian Submarine Service

The modernization of its fleet of surface warships and the addition of 12 new MCDVs to its fleet of small surface vessels are significantly enhancing Maritime Command's ability to fulfill its commitments including sovereignty protection but, as other navies have found, a balanced naval force also requires underwater capabilities. The versatility of submarines which can work in conjunction with surface ships or patrol on their own, relying on their stealth and speed for protection, makes them valuable tools in anti-submarine warfare. In peacetime, naval forces also use submarines to provide realistic training for their surface vessels and patrol aircraft in order to sharpen their submarine detection skills and on occasion to supplement the surveillance capabilities of surface vessels in territorial waters. Thus, although equipped with only three operational submarines, the Canadian Submarine Service, which celebrated its 75th anniversary in 1989, is an important element of Canada's maritime forces, and its uncertain future is a cause for concern.

Indeed, the recent upgrading of the detection equipment and weapons of Maritime Command's three Oberon class submarines has increased their value as anti-submarine platforms, but with the end of their service life rapidly approaching, restrictions on their diving performance and other limitations are diminishing their effectiveness and increasing the urgency for a decision on their replacement. The Oberon class submarines were originally scheduled to be replaced in the late 1990s by nuclear-powered submarines (SSNs), as announced in the 1987 White Paper on Defence, *Challenge and Commitment*, but the cancellation of the SSN purchase in April 1989 and the cuts in the defence budget announced at the same time have forced a complete revision of replacement plans. As instructed in the April 1989 budget, Maritime Command has been examining alternatives to the purchase of SSNs including the acquisition of a number of conventionally-powered submarines (SSKs). Indeed, Canada still requires submarines to enhance the ability of its naval force not only to meet alliance commitments, but also to provide means with which to assert sovereignty in territorial waters.

Budget limitations, however, may mean that Canada may acquire fewer conventionally-powered submarines than the 10 to 12 SSNs it was planning to buy. Furthermore, the conventionally-powered submarines will not be as capable as the SSNs, notably in Arctic operations. Indeed, the growing strategic importance of the Arctic Ocean and the need for Canada to have boats capable of operating safely under the ice cap in Canadian Arctic waters in order to assert sovereignty were some of the reasons for the proposed SSN purchase and, although the level of East-West tensions have dramatically diminished, the necessity of providing Canada with surveillance capabilities in its Arctic waters has by no means disappeared. In considering alternatives to the SSNs, Maritime Command planners have to try to maximize the limited Arctic capabilities of