

in the region, major natural-gas deposits have already been discovered. The National Energy Board calculates, in one of the most conservative estimates available, a combined proved reserve of 12.5 trillion cubic feet for the Mackenzie Delta/Beaufort Sea area and the Sverdrup Basin in the Queen Elizabeth Islands. That constitutes 21 per cent of the total national reserve. Several of the gas deposits already discovered have been in offshore areas, and it is expected that by far the largest quantity of natural gas in the Canadian Arctic will continue to be found in offshore fields. Most analysts agree that Southern Canada will begin to require gas from the North by the mid-1980s, and one Energy, Mines and Resources forecast suggests that half the national demand for natural gas will have to be met by supplies from the Arctic by the 1990s. Irrespective of the method by which this gas is delivered to markets in Southern Canada, the Arctic will loom larger in the public consciousness and the level of activity in the region will increase dramatically over the next decade. More international attention will be focused on the entire region as all the Arctic littoral states explore the promising hydrocarbon potential in their own offshore areas and as they become interested, concerned and involved in the Arctic activities of other states.

To Canadian maritime interests, a number of large and complex issues present themselves. First, enumeration can begin with a whole series of questions on which governmental agencies and what methods will be used to enforce Canadian laws and regulations concerning resource-related and shipping activities in the waters of the archipelago, in the 100-mile zone created by the Arctic Waters Pollution Prevention Act and in the 200-mile Arctic EEZ. Secondly, solutions will be required for the immediate problems of providing communications, year-round navigational aids and ice forecasts, and search-and-rescue services. The increased level of activity associated with natural-resource exploration and exploitation will overstrain, if not overwhelm, current capabilities in these areas. Thirdly, a major research effort is required to redress Canada's lack of knowledge of such fundamentals as bathymetry, winds and currents, and year-round ice dynamics – to mention only a few of the most-immediately needed data on the waters within and near the archipelago. Finally, there are defence issues such as the feasibility of protecting the Canadian supply of these energy resources from interdiction. Other states that have vital interests in energy supplies from offshore areas face this problem, and now Canada joins the club by virtue of the ex-

posed geographical location of Arctic hydrocarbon deposits and their consequent vulnerability. That vulnerability is enhanced by advances in weapons and weapon-systems technology. It should be noted in this context that the DEW Line provides radar coverage across the North up to approximately 70° North latitude. In addition, severe ice conditions prevent those Canadian icebreakers that operate in Arctic waters from entering some basins and channels at any time of the year, and almost all waters during the winter months. Thus, Canada has no air-surveillance system or radar capability for the archipelago, while its maritime-control capability in the area is only partial – and strictly seasonal at that.

This is a very short list of issues concerning Canada's Arctic region. It has been deliberately limited to the types of task that elements of the Canadian Armed Forces already perform in the Arctic or elsewhere in Canadian coastal waters. While the issues for the Arctic are generated directly by resource-related economic activities and interests, their urgency is dictated by Canadian initiatives in relation to a new law of the sea – the Arctic Waters Pollution Prevention Act and the declaration of a 200-mile EEZ in the Arctic.

Policy implications

At present there do not seem to be any significant contradictions concerning Canadian maritime forces' activities and capabilities in the Atlantic and Pacific Oceans. We need to make a continuing effort to clarify our priorities between and within the two categories of maritime security and to act accordingly, but these are essentially matters of equipment, personnel and capacity. They do not call for changes in defence or foreign policy. To be sure, failure to reach an agreement at UNCLOS, and the consequent possibility that the coastal states of the world will proceed to carve the oceans up into national lakes, would alter the context of international relations and raise innumerable new issues of maritime security. But in fact that possibility may be one of the most powerful stimuli working for the achievement of an agreement.

There is, however, considerable contradiction in maritime security needs, activities and capabilities in the Arctic. There is no capability for year-round operations in coastal waters, in the 100-mile pollution zone or in the 200-mile EEZ. While it is true that the current need for such a capability may be limited, there is ample support for the argument that we shall need such a capability within the next decade. The contradictions are a reflection of the *ad hoc*,

Continue effort to clarify security priorities