## (f) Minehunters, minesweepers, coastal-patrol aircraft and their systems.

As indicated earlier, minesweepers, minehunters and coastal-patrol aircraft would be useful for sovereignty duties and for rounding up enemy shipping on the outbreak of hostilities. For these purposes, the minesweepers and minehunters would need small calibre guns, while the coastal-patrol aircraft would need rockets or cannons.

## The special case of the Arctic

The sub-committee noted earlier that Canada's claims to the Arctic have not been universally recognized. Therefore, it believes that Canada should strengthen its case by maintaining a significant maritime presence there. The country must be able to control access to and enforce its jurisdictional claims over Arctic waters. In peacetime, this presence should be provided by icebreakers with capabilities equal or superior to those of commercial vessels now being designed for use in the North (and likely to grow in numbers as commercial exploitation of Arctic resources increases). Polar-8 ice-breakers capable of operating nine to ten months of the year will undoubtedly be required in the next five to seven years. The first, according to Vice-Admiral A.L. Collier, Commissioner of the Canadian Coast Guard, "could be ready for service in the spring of 1989 if approval is received by April of next year (1983). It should be noted, however, that some projections (indicate) that the shipment of gas from Melville Island could commence by 1987."<sup>9</sup> Surveillance by aircraft provides a needed capacity when ice-breakers cannot operate and a useful supplement when they can.

By the turn of the century at the latest, twelve-month operating capabilities will be required if Captain (N) T.C. Pullen (ret.) is right in his estimation that "year-round traffic . . . by huge ice-breaking bulk carriers is inevitable."<sup>10</sup> To be ready for that day, Canada will have to give consideration to building a Polar-10 ice-breaker, capable of year-round operations, or constructing a permanent Arctic operations base, or both. Several witnesses before the sub-committee stressed the need for a twelve-months-a-year Canadian presence in Arctic waters, including retired Chief of the Defence Staff General Jacques Dextraze, who pressed the idea of an Arctic operations base to accommodate all three service elements:<sup>11</sup> "I think there is a great need for a continuous presence in the north, manned by regular force personnel and including the native people."<sup>12</sup> Certainly, if such an idea were to be pursued — a course favoured by the sub-committee — the Canadian Coast Guard should also be included.

The advent of nuclear-powered submarines has meant that the Arctic could become a major transit route for such vessels and also that they could operate to disrupt shipping activity in the north. At present, the only way of hunting for nuclear submarines under the ice is with another nuclear submarine. If Canada

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<sup>&</sup>lt;sup>9</sup> Ibid, 23 November, 1982, p. 35:11.

<sup>&</sup>lt;sup>10</sup> Ibid, 1 February, 1983, p. 32:7.

<sup>&</sup>lt;sup>11</sup> Ibid, 8 February, 1983, pp. 39:6, 8, 12-13.

<sup>12</sup> Ibid, p. 39:13.