

For preservation of strategic deterrence, the prime requirement is for reliable early warning of the approach of non-cooperating aircraft and cruise missiles coming from outside the North American continent. While desirable, the subsequent tracking of these objects is less important than their initial identification. In contrast, air traffic control needs nearly continuous tracking of cooperating aircraft, especially when they are approaching or flying in the most congested areas. The two requirements are not the same, and a system optimized for one function may not be adequate for the other.

As well as providing for the safe navigation of ships and aircraft, which will presumably cooperate with the system serving to increase their safety and efficiency, a nation must be able to detect and prevent illegal activities carried out by ships and aircraft within the area under national jurisdiction. In the case of ships, this includes illegal fishing, a practise of increasing seriousness off the Atlantic coast of Canada, where the depletion of fish stocks is causing severe economic hardship, and is likely to result in both local and international quarrels over the quotas to be taken and the division of those quotas. It is not impossible that Canada could find itself in a "Cod War", in which case the possession of ocean-going warships would be a significant asset. For regulation of fishing, Canadian jurisdiction extends 370 km from the coastal baseline, to the lines indicating the Exclusive Economic Zone on Figure 3.<sup>14</sup>

Other maritime transgressions against which surveillance is required are pollution, most often by discharges of oil near the coast, and smuggling, with the most serious contraband being narcotics. The Arctic waters pollution prevention act covers an area north of 60°N and 165 km beyond territorial waters.<sup>15</sup> This limit is illustrated in Figure 3.

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<sup>14</sup> Sea Law Convention, 1982: Article 56 paragraph 1 states: "In the exclusive economic zone, the coastal State has (a) sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters ..."

<sup>15</sup> John Honderich, *Arctic Imperative, Is Canada Losing the North?* Toronto: University of Toronto Press, 1987, pp. 52 - 54.