alone assumes that they will remain invulnerable for the foreseeable future and that the authorities in Washington and Moscow will be ready to invest the entire security of their nations in this expectation. Admiral Rickover, the founder of the U.S. nuclear submarine fleet, recently expressed concern about the continuing invulnerability of nuclear submarines, particularly in light of the danger of breakthroughs in anti-submarine warfare through the use of surveillance satellites. John Anderson, for his part, argued as follows before the committee:

Each of the systems — that is, intercontinental ballistic missiles, submarines with submarine-launched ballistic missiles and bombers — has both its strong points and its weak points. For the submarine-launched ones, the weak point may be getting in touch with the submarines, especially if the command and control systems one hopes to use have been destroyed by ballistic missiles in the meantime. This is why both of the powers have tended to keep part of their strategic forces in three different systems.9

Mr. C.R. Nixon, former Deputy Minister of National Defence, also addressed this issue:

I think Mr. Anderson mentioned the difficulty of communicating with a submarine General Thorneycroft's scenario, which he put before you the other day, is a possibility, that is decapitation with aircraft. You must also take into consideration the fact that the American ICBMs are more than slightly vulnerable. From our own experience, we know that you can come across fleet-wide problems, whether it is an aircraft fleet or a shipping fleet. Right now we have B-52s which are quite old. I have no idea — and I am sure we will never find out — how many times they have had fleet failures or fleet groundings.

The Americans went through this exercise of a minimum deterrent. They then had to consider what would happen if they used part of their deterrent, and they were left with no riposte. Here is where we run up against a situation where prudence has to be our guide.10

Reducing existing strategic forces in pursuit of a minimum deterrence might be more easily justified if the United States, the USSR, and other countries succeeded in negotiating a far-reaching programme of arms control and disarmament including effective, massive reductions of strategic weapons and limitations on new military technology. There is little sign of this at present. East-West relations and the prospects for arms control and disarmament have deteriorated in recent years instead of improving. Consequently, there seems to be no real alternative to maintaining some degree of diversity in the deterrent forces - even though it is vital to recognize the urgency of arms control and disarmament and the need to promote these through far-reaching, balanced, and verifiable agreements.

⁸ Newsweek, "The War Beneath the Seas", 8 February 1982, pp. 36-7.

⁹ Proceedings of the Special Committee of the Senate on National Defence, 22 February 1984, p. 2:26.

¹⁰ Ibid, 3 April 1984, p. 7:16.