

on the ratio of invulnerabilities (defensive strengths). It

In discussing the nuclear weapon-free zones, we postponed a discussion of the Arctic Zone, because it has not yet been proposed by any government. The original suggestion also pre-dates 1982, having been made in 1964 by two physicists, one Soviet and one American (Alexander Rich and Aleksandr P. Vinogradov, "the two Alexanders"); but it has re-emerged as a suggestion by this author (H. Newcombe, 1981), as well as (in various modifications) by Owen Wilkes (1984) and Rod Byers (1980). In some ways, a denuclearized Arctic would be analogous to the already demilitarized Antarctic; but being in a more strategic area much closer to big power centres, it would be both more difficult to do and more worth doing. According to one plan (H. Newcombe, 1981), the zone would extend North of 60 degrees North, and include Iceland, Norway, Sweden, Finland, Kola Peninsula and Northern Siberia in the USSR, most of Alaska in the US, Canada's Yukon and Northwest Territories, and Greenland. The weapons removed would not include the early-warning lines (though these may be internationalized); only nuclear weapons systems and their supporting installations would be removed. The submarines under Arctic ice would be a problem, since they are not easily detectable for verification purposes. Some alternative plans (e.g., Byers, 1980) therefore suggest "submarine sanctuaries" in these areas, where submarines would be allowed to roam, but be bottled up from exiting into the North Atlantic or the North Pacific. Some plans would leave out the superpowers and make it a joint Canadian-Scandinavian plan (really the Nordic Zone extended to Canada and the adjoining Arctic Ocean). However, this would seem to miss the opportunity for the middle powers to negotiate at least some roll-back of nuclear weapons by the superpowers, i.e., exercise their leverage.

Galang explains that national security (invulnerability of one's territory) depends not only on the ratio of offensive strengths (of ourselves and a potential adversary), but also