

The early period was not without its complexities and controversies, but these were about the essentially moral issue of relying on nuclear weapons and the political implications of close association with the United States, rather than the military situation as such. There was general agreement that the main direct threat to North America was the one that Soviet bombers posed to Canadian and American strategic targets and population centres. The response was to maintain interceptors, warning systems, and other installations that could detect, track, intercept, and destroy all or most of those bombers before they reached their targets.

## **2. The Middle Years to the Late 1970s: Missile Focus**

During the 1960s and 1970s the direct air threat to North America changed as the Soviet Union built up its long-range missile forces and consigned its bombers to a subordinate, supporting role (Figure 2). Soviet holdings of ICBMs and SLBMs (Figure 3) as well as warheads (Figure 4) grew rapidly as the period developed, to the point where the bomber became a purely secondary concern in North America. These years were also the time of detente, when, despite the Vietnam War and the Soviet invasion of Czechoslovakia, important agreements were reached on arms control, some of which had a direct bearing on North American air defence. The SALT I Treaty of 1972 in particular was accompanied by an accord on anti-ballistic missiles that limited each side to one complex around its capital city and another in its missile fields, and this in practice ruled out the prospect of a general strategy of active defence against aerial threats. Instead, the security of the world was to be based on the policy of mutual assured destruction (MAD), where each side would be deterred from launching an attack on the other by the latter's capacity to retaliate, devastatingly, with powerful, secure offensive forces.

As the threat changed, so did NORAD defences. The NORAD Agreement was renewed in 1968, 1973, and 1975, but during this period the DEW Line was cut back to 31 sites and the CADIN-Pinetree Line to 24 stations. The Mid-Canada Line was abandoned, and such U.S. auxiliary sensors as Texas towers and picket ships were withdrawn. The Bomarc missiles were scrapped, Nike batteries declined to seven, and the number of interceptors dropped to about 300, or approximately 10 percent of earlier strength. Early warning became the top priority, and damage limitation was relegated to a secondary level of importance.

NORAD's missions shifted to warning and assessment of ballistic missile attack, space surveillance, and the maintenance of a peacetime surveillance system in North America capable of detecting and identifying unknown aircraft and providing a limited defence against bombers. New systems were put in place to meet these altered requirements: the Ballistic Missile Early Warning System (BMEWS), a network of three radars with a range of 4,800 km built in Alaska, Greenland and the United Kingdom; the Satellite Early Warning System (SEWS), which operates three geosynchronous satellites in conjunction with the BMEWS; the Space Detection and Tracking System (SPADATS), which consists of two complementary sub-systems — the U.S. Naval Space Surveillance System (NAVSPASUR), with three transmitters and six receiver sites in the southern United States, and SPACETRACK, a network of eight radar and camera sites; six SLBM detection sites located on the coasts of the United States; and a phased