

system is being designed in the United States which would ensure continued operation throughout a nuclear conflict. Initially known as the Advanced Warning System, this Boost Phase and Tracking System is expected to become operational in the 1990s.

Also being developed is the Integrated Operational Nuclear Detonation Detection System (IONDS), which would detect and assess nuclear detonations. Using 18 NAVSTAR satellites, it will contribute to nuclear test ban monitoring and intelligence collection in peacetime, and might, if the eventuality ever arose, provide damage and strike assessment information during a nuclear war.

(C) Space Monitoring, ASATs, and Ballistic Missile Defence Systems

Several American programmes are seeking to improve U.S. ability to monitor space activities. Completion of the worldwide network of five ground-based electro-optical deep space surveillance sensors (GEODSS) will help to better detect and identify objects in deep space. The planned modification of several existing radars may provide additional high and low-altitude surveillance coverage. Other advanced technologies that could lead to more capable and survivable surveillance systems in the future are also being investigated.

In addition, the U.S. Air Force plans to deploy as part of its national forces a low-altitude anti-satellite (ASAT) weapon — the Air-Launched Miniature Vehicle (ALMV) — aboard some F-15s. One report indicates that two F-15 squadrons will be employed in the ASAT role, with one on each coast of the United States, and that this U.S. ASAT system

is more flexible than its Soviet counterpart, given the mobility of the aircraft (and its ability) to hit a wider variety of targets with greater speed. It will, however, only be capable of hitting targets in low earth orbit. Research is underway to determine the best means of extending the range of U.S. ASATs, including more advanced ground and air-launched interceptors based on conventional explosives as well as laser weapons.⁸

Extensive work with ballistic missile defence components has demonstrated that an active defence could conceivably protect some high-value strategic assets from ballistic missile attack.

(D) Command, Control, and Communications

Command, control, and communications form the nervous system of military structures. The ongoing process of harmonizing and integrating NORAD's C³ with its sensors and weapons will continue as NORAD adapts its response to the changing nature of the threat. Ground relays, computers, communications links, and command facilities themselves will be hardened, given greater backup capacity, and provided with endurance-enhancing features to allow them to function for as long as possible under the most rigorous and demanding conditions.

⁸ *Arms Control Chronicle: A Chronology of International Developments*, No. 2, Canadian Centre for Arms Control and Disarmament, Ottawa, May 1984, p. 14 (ISSN 0825-1908K).