

Forward Operating Location: Air bases in northern Canada where interceptors assigned to the North American Air Defence (NORAD) role can operate. Locations as far north as possible are chosen to increase the probability of intercepting aircraft attacking North America before they can launch cruise missiles.

Geostationary orbit: If it is desired to maintain a satellite stationary above a point on the earth, it must be placed in a geostationary orbit. To accomplish this, the satellite must be travelling east, in a circular orbit above the equator at an altitude of 35,870 km at exactly the same speed as the point on the earth's surface.

Grazing angle limit: That area at the far reaches of a satellite sensors field of view where atmospheric absorption prevents sufficient energy from reaching the sensor to permit detection.

Greenland-Iceland-United Kingdom Gap, GIUK Gap: A choke point through which Soviet submarines from their main operating bases in the Kola Peninsula could pass in order to attack NATO sea lines of communication (SLOC) between North America and Europe.

Ground Track: The area traced out on the earth's surface directly below a satellite as it orbits the earth. Because the earth rotates eastward at a constant rate of 15.04° per hour, the ground trace of a satellite appears to move westward.

Horizon: Generally the distance from the observer/sensor to the earth limb, as a line of sight. Since most sensors are limited to line of sight, this is indicative of the maximum range of surveillance of that platform at that position.

Identification: The ability to discriminate a specific object under examination from other objects of the same class.

Inclination: The angle of inclination is the angle formed between the orbital plane occupied by a satellite and the earth's equatorial plane. The inclination also corresponds to the highest (or lowest) latitude reached by a satellite. For example, a satellite in a polar orbit which passes over the north pole, would have an inclination of 90° , while a satellite in orbit over the equator would have an inclination of 0° .

Infrared: Infrared systems utilize that portion of the electromagnetic spectrum just below the wavelength of visible light. In most applications, they are passive and sense the characteristic radiation given off by objects due to their temperature. Although they can function in the dark, they are severely restricted by weather. Very small temperature differences, in the order of a fraction of one $^\circ\text{C}$ can be detected.

Instantaneous Field of View: The area or volume being sensed at one instant of time.

Intercontinental Ballistic Missile, ICBM: A ballistic missile with a range of 2,800 to 5,500 km.