



AUSA BACKGROUND BRIEF



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Army Issue: ARMY ROLE IN SPACE

EXECUTIVE SUMMARY

The Army has a vital interest in space and is a major user of space systems. In addition, the Army is deeply involved in the research and development (R&D) of missile defense systems.

The Army has a long history in space, starting with early rocket development and through many years of development on ballistic missile defense. Today, the Army has a unique technical base in ground-based missile defense and has done much of the R&D work to date on theater missile defense and the ground-based aspects of global protection against limited ballistic missile strikes (GPALS).

From the operational perspective, the Army is increasingly dependent on space technology and space systems. This was demonstrated during the Persian Gulf War with use of satellite support for command, control and communications; position location; and intelligence and weather information.

Future doctrine demands even greater reliance on space with its visualization of the digitized battlefield and the need for the integration of space-related capabilities. Space systems have an indispensable role in synchronization of the mobile battlefield, which is increasing in width and depth.

The Army has to be a strong player in space to be sure its requirements are adequately defined and that its needs for the future will be met.

The Army's technical infrastructure in ground-based missile defense is a national asset which needs to be preserved and utilized.

The Army recently merged its Strategic Defense Command (which handled the development aspects for the Strategic Defense Initiative (SDI) and ran the Kwajalein Test Range) and its Army Space Command (which was part of the U.S. Space Command) into a single U.S. Army Space and Strategic Command. This new three-star command was intended to give a single, clear focus on the Army's interests in space.

The recent roles and missions report by the chairman, Joint Chief of Staff, indicates a possible elimination of the U.S. Space Command with the space mission assigned to the U.S. Strategic Command. This is still being reviewed. Regardless of the outcome, the Army must have formal representation. It needs to have a recognized voice in policies and decisions pertaining to requirements, funding, allocation of assets and operating priorities of space and space systems.

AUSA recommends that the Army's Space and Strategic Command remain as constituted and serve as the Army's voice for all Army space matters; also, that the Army retain executive agent responsibility for ground-based missile defense.

ISSUE

This issue involves the Army's legitimate role as a prime user of space, to include future Army requirements; also, for recognition of the Army's legitimate interests under service roles and missions.

BACKGROUND

The Army is pursuing, in conjunction with other services and national agencies, the identification, design and development of space capabilities that satisfy the needs of the United States and the Army well into the 21st century.

Although the public does not associate space activities closely with the Army, the Army has a significant track record in space achievements. Some early milestones include launching the first successful U.S. satellite into space with an Army Jupiter missile in 1958 and, in 1961, launching the first American into space using a modified Army Redstone rocket.

The Army was responsible for the SAFEGUARD program for ballistic missile defense (BMD) from 1957 to 1976. The first SAFEGUARD complex was activated in North Dakota in 1974 and became operational in 1975. The program was cancelled in 1976 by direction of Congress.

Since then, the Army has continued a significant BMD R&D program and has been the executive agent for a major portion of SDI development starting in 1983. In addition, the Army is the executive agent for the Kwajalein Missile Test Range in the Pacific.

In 1990, the Army was selected as the lead service to develop a near term ground-based, kinetic energy anti-satellite weapon system. When developed and deployed, this system would be able to intercept and destroy low earth-orbiting satellites.

The U.S. Army Strategic Defense Command was given responsibility in 1985 to carry out the developmental and testing tasks. The following year, the U.S. Army Space Command became the Army component of the U.S. Space Command. These two organizations were consolidated in 1992 into a single Army Space and Strategic Defense Command (SSDC) to provide a central focus for space matters.

The Army's use of space for operational purposes became very apparent during the Persian Gulf war where 75 percent of communications were via satellites. The dependence of navigation and location designation systems on space was clearly demonstrated (i.e., the small lightweight global positioning system (GPS) receiver, or SLGR). Future Army doctrine and operational concepts will further amplify the Army's increased use and dependence on space systems.

The recent chairman, Joint Chiefs of Staff (JCS) review of service roles and missions, dated February 1993, addressed space. The report proposes that all space functions be consolidated into the U.S. Strategic Command (STRATCOM); if implemented, STRATCOM would absorb the present U.S. Space Command. The recommendation of the JCS chairman to the Secretary of Defense would allow the Air Force to operate space systems under STRATCOM. No final decision has been reached on the proposal. The other services, including the Army, are concerned that they may not be adequately represented in STRATCOM and want to be sure that all service space requirements are recognized and adequately supported.

DISCUSSION

Today, the Army's reliance on space is an essential part of America's power projection Army. Of all the services the Army is probably the greatest user of total products from space, which include communications, position location, mapping, terrain analysis, early warning, weather analysis and space-based systems for intelligence.

Assured access to space products is essential for the Army's warfighting capability. These products support the soldiers — from the corps commander down to the small unit leader — and provide the edge on today's battlefield, as well as in peacetime engagements where real-time information is key to accomplishing the mission.

From Operation Desert Storm to Operations Provide Comfort and Provide Hope, to relief operations after hurricanes Andrew and Iniki, and support to counter-drug efforts, access to space products in support of ground operations was an important element to success.

In a recent interview, commenting on the importance of space-based systems to Army operations, Lieutenant General Lionetti, commanding general of the newly restructured Space and Strategic Defense Command, said, "One only has to look at Desert Storm to realize that the Army can never go to combat again without effective and adequate support from space systems." He added, "We've become absolutely and totally dependent upon space communications. The global positioning system changed the mind-set of the U.S. Army completely."

Other space-based assets that proved invaluable during Desert Storm included weather satellites, multispectral imagery satellites to enhance maps and guide movement of forces, and warning receivers that were critical for the Army's Patriot air defense systems to be ready to engage Scud missiles and to warn populations that Scuds were launched.

Space systems are essential to intelligence and communications as the Army faces the potential requirements of having to deploy, operate and sustain itself at any time and anywhere in the world.

Technologically complex systems are growing smaller, lighter and are easier to use. Many of these technology advancements will find applications in space systems. This is particularly true for those technologies that will reduce costs of future space systems while improving reliability and performance. The process of developing the requirements for new systems must not be left to the purview of the space technologists alone. It requires input from the ground commanders to guarantee timely, accurate and usable information from space.

Space is integral to airland operations where space support to Army forces will increase. Lessons learned from recent conflicts indicate the need for integration of space-related capabilities in the planning and execution of the activities listed below:

- communications
- weather and environmental monitoring
- reconnaissance
- surveillance
- targeting
- position location and navigation
- intelligence reporting

The utility of space and space system capabilities is not going unnoticed by others. A number of nations are aware of the capabilities provided by satellites and have some access to them. As a result, potential U.S. adversaries will become more formidable opponents by using space capabilities themselves. They will also become a greater threat in the possible jamming of our satellites.

The Army is at the leading edge of the theater missile defense program. The proliferation of missiles on the world scene virtually guarantees that any future mid- to high-intensity conflict would involve ballistic missiles. The Army must be ready with capable defenses. Maintaining theater missile defense weapons under Army control is vital in providing protection of the force — a key responsibility of the ground commander.

CONCLUSIONS AND RECOMMENDATIONS

The Army is dependent on space and space systems and is a major user of space products.

Future ground combat doctrine assumes expanded space capabilities to support the digitized battlefield in which landpower dominance heavily depends. Space becomes the ultimate high ground. Key areas for use of space and space support include weather, communications, navigation, position location, reconnaissance, targeting and missile defense.

The Army wants and needs to be a major player in space. It must be a key participant to establish Army requirements and the proper allocation of space assets. The Army Space and Strategic

Command was designed to do this, as well as other functions relating to the development of missile defense. Establishing this command clearly reflects the Army's serious intent in space.

The Army currently has a lead role in ground-based national missile defense and theater missile defense. The Army's technical base on ballistic missile defense needs to be retained and utilized. It is a national asset.

While the defense proposals on space control and consolidations are pending, the Army should clearly be given a visible and positive role.

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