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Army Space Master Plan

By LTC Rob King

As proven in Operations Enduring Freedom and Iraqi Freedom, today's battlefield extends vertically into Space, the ultimate high ground. As a Space-empowered force, the Army now and more so in the Future Force will exploit Space capabilities to enable future force concepts and the concepts of network-centric warfare.

Robust Space capabilities enhance information superiority and situational awareness, permitting high-tempo, noncontiguous, simultaneous distributed operations. If the Army is to best exploit Space for 21st century land warfare, joint Space capabilities must be shaped and influenced to provide those key enablers most beneficial to the Army. If you work in the Space "field," the aforementioned is well known. However, to many in the Army, the capabilities from Space are taken for granted.

Turn on your hand held GPS device and you get your location, turn on your television and you get 200 channels, plug in your satellite radio and you talk to the world. We all know these capabilities don't just happen, there needs to be a plan or roadmap to retain these capabilities while building new or future capabilities or systems.

The Army Space Master Plan (ASMP) is the roadmap for the Army's use of Space. It proposes a vision of Space as a key enabler of multispectrum capabilities to the Army and joint force commander. The latest version, currently awaiting signature, is the follow-on to the first ASMP published in 1998. Using The Army Plan as the baseline, Joint Operating Concepts (JOpsCs), Joint Functional Concepts, Army Concepts, and the Army Transformation Roadmap (ATR), the ASMP defines the nine key Space functional areas and provides a roadmap to address each of the concepts and capabilities required to support the warfighter in the near term (2006-2011), mid-term (2012-2020), and far term (2021-2030). It identifies Doctrine, Organizations, Training, Materiel, Leadership and education, Personnel, and Facilities (DOTMLPF) solutions to Space mission needs, and it assists the technical community by providing guidance for their science and technology plans.

The ASMP provides the links between Army priori-

tized needed capabilities and proposed Space solutions and identifies the most important Space-related tasks the Army must perform. These required capabilities are documented and reflected within the U.S. Army Training and Doctrine Command's (TRADOC's) Capability Needs Assessment (2005-2011) and driven further by the Space needs of the Future Force, global architecture interfaces (network-centric warfare), obtaining decision superiority, and the Army's overall transformation to a knowledge-based community. It considers all Department of Defense (DoD) and agency solutions to Army Space shortfalls and serves as a vehicle to document Army needs for support to the DoD executive agent for Space. Ultimately, it presents an integrated assessment of all Space functional areas.

Throughout the analytic and staffing process of the ASMP, the following key conclusions emerged about the role of Space in the Army's prosecution of land warfare:

- The Army's primary interest in Space is its role as an enabler of 21st century land warfare. Advanced technology will make available throughout the mid- and far-term planning periods both improved and new capabilities that will enable the information dominance essential to the transformed Army land force envisioned for the 2021-2030 time period. The aim is to hold and improve the asymmetrical advantages that Space capabilities bring to the joint fight.

- The most important Space tasks that the Army must perform relate to reconnaissance and surveillance, satellite communications, navigation, missile warning, Space control, and other Future Force applications from Space. These tasks contribute directly to the paradigm of information dominance and network centric warfare that is the cornerstone of future joint warfighting. The most important component of these tasks is the integration of Space enablers into overall Army command, control, communications, computers, intelligence, reconnaissance, and surveillance (C4ISR) capabilities.

- The highest priority shortfalls in performing Space tasks are in areas such as satellite communications (SATCOM) on the move; intelligence, surveillance, and

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reconnaissance (ISR); terrain monitoring; missile warning against certain threats; and Space science and technology (S&T) and research and development (R&D) for Army-specific applications. Small improvements in these areas can have large impacts in the overall military utility of Space to land combat.

- The solutions that are prioritized as high across all three planning periods are those that contribute the most military utility to the most important Army tasks for Transformation and the Future Force (e.g., SATCOM, ISR, Space control, and navigation).

- Those solutions that rank low in relative priority, including exercise play, doctrine, Space education and training tend to be more narrowly focused or provide less direct overall military utility than those ranked above them, but are still important to maximize the contributions that Space makes. Several provide the DOTMLPF foundation required for the Army to best exploit Space.

- As Space-based capabilities take on roles in enabling joint warfare, protection of U.S. Space assets from adversaries and the ability to deny the benefits of Space to those adversaries become increasingly important. Space control is becoming a far more significant issue as potential adversaries gain the technology to threaten our asymmetrical advantage in Space.

- Force application from and through Space will likely emerge in the mid- and far-terms as a revolutionary joint force capability. Additional S&T and R&D are required to identify the specific technologies that will be applied in operational lethal and non-lethal Space force application solutions. Additionally, policy issues regarding Space force application must be resolved.

To accomplish Army Space goals and maintain its position as the world's dominant land force, the Army must follow a strategy that maximizes the benefits of the following key Space enablers.

- Continue to demand that the on-orbit capabilities provided by DoD, the other services, and government agencies meet Army needs.

- Continually and forcefully advocate the Space capabilities that the Army needs. Space capabilities are now defined in an inherently joint process that is largely controlled by the DoD Executive Agent for Space. Strong efforts are needed to press for new capabilities, assess compatibility with the Army information architecture, maintain program synchronization, and advocate Army interests in assured launch, replenishment, and control of on-orbit assets.

- Concentrate Army resources on exploiting the key aspects of Space that enable the Future Force and Army Transformation. Emphasize integration of Space-based and Space-enabled products into Army C4ISR, the common operational picture (COP), and force and logistics tracking. Focus on the people and tools to exploit Space such as terminals, ground exploitation systems, and the DOTMLPF components of Space enablers.

- Field organic joint or interoperable Space capabilities such as theater Space control assets that directly contribute to the land warfare mission.

- Continue to build a cadre of Space professionals with the depth and breadth of training, education, and experience to identify and refine Army needs for Space-based enablers and to bring the benefits of new Space-related capabilities to land warfare.

Most of the solutions presented in the integrated roadmap depend to a large degree on other services or agencies to field the basic Space capability (Joint Interoperability). The underlying assumption in this plan is that the Army recognizes its dependence on Space enablers to fight the joint war of the Future Force and will find the resources to exploit and defend Space.

What is next for the ASMP? The Space planning process used to develop the latest draft ASMP is a lengthy process. It took the mission area teams a full year to derive their final conclusions and to complete worldwide staffing. The intent for subsequent ASMPs is to publish it biennially. The next version will utilize the Army Campaign Plan and Joint Operating Concepts to a greater extent as the baseline. Expect to see more DOTMLPF solutions rather than having a heavy Materiel (M) focus as well as a format change that is more in line with the Joint Capabilities Integration and Development System.

Synchronization of our effort will also include involvement with the TRADOC Futures Center Capability Gap and Functional Needs Assessment as well as including the other services in the Space planning process and vice versa. We have already begun work with the Air Force on developing their Strategic Master Plan.

LTC Rob King currently serves as the U.S. Army Space and Missile Defense Command Liaison Officer to Training and Doctrine Command. LTC King would like to credit Gene Pheffer for portions of the article.