Space - An Enabler
Implementing Space technology into Army operations has been evolutionary in nature and slow in progress, taking many twists and turns and slowly gaining acceptance as our ground forces are transformed. Now having gained momentum, Space technology has taken on the appearance of a steamroller promising to create mission effective Soldiers for the next millennium. This technology is the embodiment of a new vision, a transformation into a new world. The Army’s future in Space is vital and essential. It protects our Soldiers via situational awareness, enhanced communications, speed of implementation, and operational overmatch that allows for better battle management and combat support (Force enhancement). With the potential of all but freeing our Soldiers from the “fog and friction” of war, Space has now become mission essential for combat operations.

LTG Joseph M. Cosumano Jr., commander, U.S. Army Space and Missile Defense Command (SMDC), recently emphasized: “Force enhancement embodies the warfighter’s use of Space. It provides ‘value-added’ to the battlefield functions, enabling the land Force to accomplish its terrestrial mission. As the future Army matures, we will ensure that upgrades to Force enhancement capabilities address future requirements. Such capabilities include Beyond-Line-Of-Sight satellite communications; intelligence, surveillance and reconnaissance (ISR); position, navigation and timing; weather, terrain, and environmental monitoring; and missile warning.”

BG Richard V. Geraci, former deputy commanding general for Operations, SMDC and deputy commanding general, U.S. Army Space Command, added: “We want the Army of the future to be strategically responsive, deployable, agile, versatile, lethal, survivable, and sustainable. Attaining these qualities requires a thorough examination of the required technological, doctrinal, and organizational changes, as well as their interdependencies and political impacts.” He further stated: “Space-based ISR is a prerequisite to domination of the battlespace by the future Army. In many areas of the world, Space-based ISR will serve as the primary ‘eyes and ears’ of future combatant commanders — particularly during early entry and other ‘transition’ operations or periods. Satellite constellations of the Objective Force era will provide commanders with the all-weather, 24-7 view of the battlespace that commanders need to enhance situational awareness and optimize our chances for success.”

The question of where Space technology is leading our ground forces requires an open acceptance to new ideas and visions. While both our American
and our military cultures are open to acceptance of
new technology, it cannot be implemented so fast
as to overwhelm our sense of stability and common
understanding of reality and possibilities. We accept
Space travel because we modified our thoughts
and understandings through the technology of air-
planes, electronics, jet engines, etc. It is impossible
to explain Space flight or walking on the Moon to
primitive men still living in some remote areas of
the planet. We are all aware that many technologies once
projected as science fiction are now reality.

In an earlier edition of the Army Space Journal,
COL Glen C. Collins Jr., SMDC, said our inputs are
“the key to developing the right Space equipment
and organizations to meet those requirements.” He
also reiterated: “Units of Employment and Units of
Action are being designed with Space-based capa-
bilities in mind. The Army Space Command will
be activated as a Table of Organization and Equipment
(TOE) brigade with TOE battalions.”

The Army must prepare for transformation and
Space-based capabilities will be an integral part of
this new Army. Space is an enabler. It will assist
the military and revolutionize the way it fights wars.
What was just a dream a few years ago is now a real-
ity — Space Soldiers are here.

We can expect our future operations to continue
to focus on safe, effective, efficient peacekeeping
missions that protect the lives of our Soldiers, thereby
minimizing casualties. To accomplish this, our
forces may need to aggressively target the adversary’s
terrestrial Space assets while at the same time pro-
tecting our own. Superior intelligence is essential
to achieving a “mean, lean operating machine”-type
ground Force. The continued evolution of Space
technology promises to enhance intelligence prod-
ucts in many areas of combat operations and help us
achieve a winning battlefield environment.

Leveraging Space technologies for military util-
ity offers a distinct advantage to our ground forces.
Integrating technological advancements into our
various operational options will provide unique future
capabilities. Since advancements are progressing at steamroller pace, we must remain open to
new ideas, capabilities, innovation, and change. As a
nation, as a culture, as a military, we must be willing
and able to integrate these emerging technologies to
produce unchallenged superiority. To accomplish
this, however, we must embrace quick and efficient acquisition processes, early testing, cooperative joint
experiments, quick looks and developments of future ideas and possibilities, early prototypes and fielding,
as well as proficient and expert training. Only with
such a holistic approach will we be able to leverage
the Space technologies that can provide the capa-
bilities that will allow our ground forces to achieve
decisive victory on future battlefields.

Fielding smaller, more mobile, agile, and self-con-
tained ground forces and units means that they must
be combat ready when embarking on peacekeeping
missions (war zones, humanitarian efforts, political
unrest, etc.). Space technology will help our ground
forces make timely and accurate decisions to achieve
victory. Communications and updated situational
awareness will be in real or near-real time with pre-
cision targeting. Space will be the forward-looking
observer — able to answer all the right questions
(who, what, when, where, and how) and provide
just the right information to the right place at the	right time. Space technologies will give our Soldiers
advanced warning capabilities, provide accuracy,
radar imagery, detection, real-time or near-real-time
digital and analog data useful to a warfighter, track-
ing, relay capabilities, position, navigation and time
technologies, situational awareness, precise targeting,
superior communications, vertical and horizontal
integration capabilities, surveillance, intelligence, and
much more.

As Space technologies evolve, smarter, faster,
more capable sensors, energy devices (kinetic, laser,
nuclear, etc.), communication enhancements, etc.,
will emerge and engulf military ground forces in a
new world of Space capabilities and enhancements
for effective battle management. But because we live
in a time of constraints (limited resources, equip-
ment, people, and budgets), we need to approach
every decision as a series of trade-offs. We examine
all the pros and cons. Our background in acquisition
has taught us the criticality of the development and
implementation phases to the future of our nation.
As the Army transforms and matures, as its capabili-
ties improve, and as its future becomes certain, there
will be numerous trade-offs, hard decisions, and
down-selects. The difficulty lies in selecting the very
best from the many possible choices for our ground
forces. Space technology is the new challenge. It is
moving to center stage. We must be ready to seize
every opportunity to enhance the battlefield capabili-
ties of our ground forces. We carry the burden. We
must make the right choices, choose the right devel-
opments, and field the right equipment. Our nation
depends on us. Our future ground forces expect us
to provide them the right leverage to win the war for
peace!

1. The Army Space Journal, “Space ‘Key enabler’ for Army Transformation,”
3. The Army Space Journal, “The View From (Army) Space…How Space