

B-2 on ramp, Nellis Air Force Base.



U.S. Strategic Command

509th Communications Squadron (Michael R. Nixon)

Meeting Global Challenges

By JAMES O. ELLIS, JR.

The Nation has faced unprecedented threats over its history that called for a bold strategy. Consider the following statement in the inaugural address of Harry Truman: “Events have brought our American democracy to new influence and new responsibilities. They will test our courage, our devotion to duty, and our concept of liberty.” Those words

reflect the major challenges faced by a commander in chief who worked with Congress to reorganize the Armed Forces and establish new missions demanded by national security. Today civilian leaders are again taking bold steps to introduce changes in military organization because of national security imperatives.

Established in October 2002 to replace Strategic Air Command and U.S. Space Command, U.S. Strategic Command capitalizes on synergy generated by combining command and control of nuclear forces and space-based operations. Subsequently, it received four previously unassigned

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missions: global strike planning and execution; integrating information operations; integrating global ballistic missile defenses; and command, control, communications, computers, intelligence, surveillance, and reconnaissance (C⁴ISR).

Each new mission is strategic in both scope and effect. Full operational capability for this dynamic package will provide a unified resource for better understanding threats as well as a means to respond quickly. Legacy missions impose the rigorous discipline of nuclear responsibilities and creative drive of experience in space. Effective evolutionary strategy runs through these missions as the command gathers and translates real-time data to produce actionable intelligence to enable decisions on a timely basis for joint warfighters.

Global Strike

The first new mission requires rapidly projecting military power against terrorists, hostile states, or any other threat. It depends on synergy achieved by identifying target sets and managing space-based assets for weather and intelligence, surveillance, and reconnaissance mission planning support, global positioning for precision execution and timing, and comprehensive communication systems under the sea, in the air, and in space.

To reclaim the original meaning of the term *strategic* as more than a synonym for nuclear, the capabilities must include conventional weapons

as well as kinetic and nonkinetic alternatives that can be employed to meet various threats in time-critical situations. The promise and

challenge of global strike is producing capabilities that reach across mission areas. Global strike is realigning and repositioning the military to protect the Nation and its allies. The structure and employment of the Armed Forces are changing. Agility is an attribute requiring smaller, more rapidly deployable units. U.S. Strategic Command must be able to support them with a responsive strike capability, which can reach globally in hours or even minutes.

The command is also preserving six decades of nuclear weapons stewardship and its focus on strategic nuclear forces. The triad of bombers, ballistic missile submarines, and intercontinental ballistic missiles is key. The President is committed to reducing operationally deployed warheads to between 1,700 and 2,200 within a decade, and the command is responsible for this task while maintaining national security. Toward this end, it will periodically assess the strategic environment and reductions to ensure that forces are aligned for the future. The command will draw down the

number of Peacekeepers in exchange for the warheads on the older Minuteman III missiles in fiscal year 2006. It is also extending the life of Minuteman III missiles by upgrading both propulsion and guidance systems while exploring future intercontinental ballistic missile concepts.

Information Operations

Analysts often equate information operations with computer networks, but that view does not reflect actual missions. Commanders operate in a multidimensional battlespace that calls for going beyond day-to-day military requirements. In this environment, information operations have an incredible impact through electronic warfare, psychological operations, operations security, and military deception. U.S. Strategic Command seeks to ensure use and trust of friendly information systems while denying some or all of that use and trust to an enemy. Understanding the vital role of information in every segment of society highlights the importance and scope of this mission.

Information operations are rarely defined broadly enough. They can include all instruments of national power and the interagency process. They will not be effective unless integrated across the national security community. Furthermore, information operations are not new. Almost every organization has its own program. The difficulty comes when commanders find themselves in the midst of crises and organize information teams from disparate sources. The command vision has resolved this issue by providing a single integrated source of assets for every commander.

Global Missile Defense

There is a wider range of threats today than during the Cold War. The distinction between national missile defense and theater missile defense no longer exists. The Missile Defense Agency is specifically tasked to develop missile protection for the homeland and allies. The mission of U.S. Strategic Command is turning the focus of warfighters to missile defense and also making the system operational. Initially, the command will integrate disparate missile defense systems in one system and link it to other offensive capabilities. In addition, it must examine technological, organizational, and operational capabilities to integrate and develop a multilayered system to protect the United States and its allies.

Multilayered missile defense involves more than directing missile-on-missile engagements. The emerging defense network will integrate

the distinction between national missile defense and theater missile defense no longer exists

USS Lake Erie
firing SM-3 missile.



U.S. Navy

command and control, attack operations, intelligence, interceptors, and the full spectrum of sensors able to feed information on the terrestrial and space environment to battle management centers that direct interceptors to targets. But there is no system capable of stopping every threat. The solution lies in multiple layers of defense with a number of systems. The initial ground-based missile defense interceptors will be fielded at Fort Greely and Vandenberg Air Force Base. The command is also considering other systems such as Patriot and theater high altitude air defense. In the future, the global

missile defense system is likely to include sea-based interceptors, the airborne laser, and other cutting-edge technology.

Global C⁴ISR

The fourth mission, global command, control, communications, computers, intelligence, surveillance, and reconnaissance, is best understood in terms of its constituent parts. Each element is distinct and raises specific issues. The first goal is developing a command and control structure that provides knowledge superiority, information assurance, timely decisionmaking capabilities, and prioritized resource tasking on a global

Tomahawk missile test at Point Mugu.



scale. This will allow integrating strategic, operational, and tactical levels of command from the President to warfighters. In addition to obvious technical challenges, establishing governance, standards, and policy to ensure the transition to a multilevel, secure, network-centric enterprise remains a primary objective.

U.S. Strategic Command is integrating command and control systems across mission areas and engaging other organizations to identify requirements for consolidated support of warfighters. One example is its collaboration with U.S. Joint Forces Command and the Office of the Assistant Secretary of Defense for Networks and Information Integration to delineate the responsibilities of warfighter command and control. In a parallel effort, the command is working to consolidate and centralize command and control governance, a key to attaining a truly global DOD enterprise.

Lessons from Enduring Freedom and Iraqi Freedom identified requirements for commercial satellite communications, network security, and bandwidth expansion. The command is working with public and private sources to improve the use and protection of these assets. It will remain focused, apply lessons, and address challenges while ensuring that it does not create stovepiped

systems. The ultimate goal will involve cultural change as the command introduces a 24/7 cross-functional information sharing system.

U.S. Central Command had seven times more bandwidth available in Iraqi Freedom than Desert Storm, and four-fifths of that expansion came from commercial systems. Modern systems require increased capabilities. For example, Global Hawk unmanned aerial vehicles can receive commands and transmit high resolution streaming video with up to 1.2 gigabytes of bandwidth per second. By contrast, older manned U-2 aircraft need only 2 megabytes per second. Warships that fire Tomahawk cruise missiles can also be heavy users of satellite communications, especially when relying on space-based systems to obtain targeting information. Bandwidth demands will only increase as more unmanned aerial vehicles are fielded and new weapons are deployed that can be reprogrammed in flight, such as the Tactical Tomahawk.

U.S. Strategic Command is assuming some intelligence, surveillance, and reconnaissance duties from the Joint Staff. These capabilities are seen as a weapons system to enable operations with a deterrent value of their own. As commanders rely on more sophisticated and integrated ISR support, the command must supply unprecedented situational awareness for battlefield dominance.

The command is building on the legacy of U.S. Space Command. Land forces will depend on the next generation of space systems with space-based radar, transformational communications, and space-based infrared and global positioning systems. When integrated, space forces will offer decisionmakers and commanders unprecedented situational awareness, communications, and navigation and timing.

Coordinated application of these capabilities is essential to give the Armed Forces battlefield dominance and enable concepts such as global strike and missile defense. This will require a single source for space-based capabilities that cuts across the military and national space boundary. Strategic Command is uniquely positioned to help plan and support an effort to combine military and national security space operations in support of both peacetime and wartime operations.

Military Culture

A global focus and unique combination of missions require cultural changes. To achieve the vision of the President and the Secretary, U.S. Strategic Command must synchronize its assets toward a single purpose. Its missions are dynamic and must evolve cohesively. Strategic thinking requires breaking down boundaries and surmounting ownership issues. The Nation can no longer

USS Ohio undergoing conversion.



U.S. Navy (Wendy Hallmark)

afford bifurcated operations. Old divisions—civilian and military, joint and service—must give way to a strategic, coordinated, unified approach to serve everyone concerned.

U.S. Strategic Command has Army and Marine Corps components that work closely with their Navy and Air Force counterparts. Joint task force-global network operations and information operations center personnel interact with partners from the National Security Agency and Defense Information Systems Agency. Moreover, foreign colleagues are being added. Britain is on

board, and other allies will join the endeavor in Omaha to work together in unprecedented ways to ensure the security of the free world.

The command must continue to engage a future that not only links across military and national security operations but builds a truly combined system where observing, orienting, and acting are one process, not three.

Enduring Freedom and Iraqi Freedom revealed the potential of cutting across organizational boundaries in space as orbiting capabilities became critical warfighting components. Now the command must change the way it interacts in all mission areas to ensure that warfighters have the

support to access data and conduct effective operations during any conflict. Timely and accurate information has become a decisive advantage in the shadowy global war on terrorism, especially for Special Operations Forces. While these professionals do not ask for accolades, they demand the most up-to-date information.

The Armed Forces are challenged to discover, observe, and target more elusive enemies in the

U.S. Strategic Command will provide a unified resource to better understand threats and rapidly respond to them

72-hour air tasking order cycle and even the 45-minute response time seen in Iraq. While that is a remarkably short kill-chain cycle, it was ten minutes late for one well-publicized strike. The command is

uniquely positioned to help plan and support the dynamic evolution required to further compress this timeline to better hold enemies at risk.

The command will not realize its potential until processes linking it to the common pursuit of national security are addressed. New organizations with old processes are not an answer. It is clear that chains of command must be streamlined and duplication avoided. And it is not an issue of ownership or self-aggrandizing authorities. Rather it is about doing what is right and best for the security needs of the Nation.

Partnerships with civilian agencies, industry, and academe are also vital to all mission areas and to achieving the integrated teamwork essential to success. The command is fortunate in having strong relations with these players, and as it moves forward in each new mission area it will need even stronger ties with all its partners, old and new.

Tradition and Innovation

As it becomes fully operational, U.S. Strategic Command will provide a unified resource to better understand threats and rapidly respond to them. However, achieving such capabilities will require charting a course over the horizon. This effort involves developing a new paradigm that is not understood at present. Consider designers of video games. It can take from 18 to 30 months to make a quality game for personal computers. Work can begin on games before the computer on which they will be played becomes available. And all that effort is for developing games.

The stakes involved in developing and coordinating systems for national security are much higher and need an advanced level of foresight. America has reached a pivotal point in its history. The security environment is changing dramatically.

U.S. Strategic Command is literally new. Its missions confirm that *strategic* should not be equated with *nuclear* but rather defines the range of options available to protect national security. Meanwhile, potential enemies will seek to exploit vulnerabilities on land, at sea, and in the air as well as in information networks and space systems.

The command can build on traditional strengths while shaping its broader and deeper role. To accomplish this goal, its service components must reach outside their own traditions to integrate tasks in new organizational constructs and draw on expertise from across the defense community. At the same time the command relies on the services to provide unique perspectives and distinct contributions. This mix of tradition and innovation has resulted in excellent progress.

There are unprecedented opportunities to shape capabilities to meet the needs of the Nation. Unfortunately they will remain nothing more than opportunities without the courage to seize them, which means consolidation. U.S. Strategic Command must integrate operational concepts as well as streamline chains of command, not just draft memoranda of understanding or organize senior steering groups. Bold innovation must drive efforts to support the new missions assigned. Global threats are too radical for old ideas. The bottom line is not complicated: U.S. Strategic Command must think and act in new ways.

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