

The other services support—but are wary of—the leading role that has been assigned to the Air Force.

Interservice Static in Space

By Ann Roosevelt

WHEN Secretary of Defense Donald H. Rumsfeld revamped military space management in a way that expanded the Air Force's authority, hackles quickly rose in the Army and Navy.

Rumsfeld in May designated USAF to be the Pentagon's executive agent for space, yet space is critical to all services. Space systems provide communications, intelligence, and target information—the lifeblood of modern military power. Not surprisingly, interservice tensions flared.

The Army and Navy both signed off on the changes and publicly support them, but both are watchful and warn that USAF must preserve the joint nature of the US military space enterprise and accommodate their unique needs.

"The devil is in the details," said Lt. Gen. Joseph M. Cosumano Jr., commander of Army Space and Missile Defense Command and Army

Space Command, the Army's focal point for space activities and a component of US Space Command.

Asserted Rear Adm. Richard J. Mauldin, head of Naval Space Command, "We're always concerned when another service has lead on an issue of such extreme importance to the Navy." The admiral's organization is also a component of US Space command.

Of the two services, the Army appears edgiest about the Rumsfeld reformation. One key change entails setting up a special DOD budget line for space systems and activities. Cosumano was frank to say that, as that process unfolds, the Army will be watching the Air Force like a hawk.

He maintained that the Defense Department must guarantee that Army requirements and capabilities are addressed but ensure that "all the services' requirements are properly

acknowledged, adjudicated, and given a fair opportunity to compete for resources in the joint context."

The Army Space and Missile Defense Command is not only the Army proponent for space but also integrator for missile defense, which is linked to space assets and capabilities, particularly new early warning satellites and space based radar.

Col. Glen C. Collins Jr., director of the Force Development and Integration Center at SMDC, was asked his view of the effect of Rumsfeld's changes.

"Irrevocable Harm"

Collins told *Defense Week*, "Although the NRO [National Reconnaissance Office] and Air Force have the largest investments in space, the capabilities provided and the integration of those capabilities are equally important to all the services. Any actions or decisions that do not

protect the joint nature of our space forces ... would cause irrevocable harm to the services' warfighting capabilities."

Collins's job is to help develop the Army's space programs, including ground-based efforts to defend US satellites and target the spacecraft of adversaries. His comments are not consistent with someone who fully trusts the Air Force.

He said, "The increased responsibility and authority given to the Air Force ... must be balanced by increased oversight from the commander in chief of US Space Command, the Joint Chiefs of Staff, and [the Office of the Secretary of Defense]. Without this oversight, there is potential that space could become focused on support to a single service, its style of warfighting, and to its priorities. This would be contrary to the best interests of the Army."

(There are signs that the Army and its supporters aren't totally synchronized on the issue of space. At a time when senior Army officials were working to protect Army interests in space, high-profile Army retirees tacked in the opposite direction. The prime case in point: Retired Gen. Gordon R. Sullivan, a former Army Chief of Staff and now president of the Association of the US Army in Washington, D.C. Sullivan warned in a May 10 speech that "countless billions" might be spent on military space activities. "Look up at the sky and see how much money you want to pour into *that* rat hole," Sullivan remarked.)

As the commander of Naval Space Command tells it, he also keeps a close watch on the Air Force as the space reorganization unfolds.

Space is vital to the Navy, which routinely operates large force elements for long periods in widely separated parts of the globe, said Mauldin. And the Bush Administration's examination of Navy systems for a possible role in national missile defense could also strengthen the Navy's interest in space operations and capabilities.

Even so, the Navy concedes that the Rumsfeld reforms are logical. "The truth is that the Air Force has been the lead service for space for years, with the bulk of the dollars, people, and programs in space," Mauldin acknowledged.

He quickly adds, however, that

the Navy also has a large investment in space. The admiral points to successful space efforts such as the latest satellite communications program, the Ultra High Frequency Follow-On. This Navy program was designed to meet Navy and joint requirements. The service used a single multiyear turnkey contract to put 10 satellites on orbit via commercial launch. (Nine UFOs are successfully on orbit; a March 1993 launch left one in the wrong orbit. The Navy has contracted for an 11th satellite, scheduled for launch in 2003.)

Such systems are vital to the Navy. Service officials explain that, at the outbreak of the Persian Gulf War in 1991, an average American living room with cable TV had access to more bandwidth than did a Navy aircraft carrier. Navy officials are determined not to be caught in that situation again.

Assurance and Reassurance

The Air Force (and its Pentagon allies) has been at pains to reassure the other services that their interests are secure. Rumsfeld addressed the issue head-on, declaring that operational control of satellites is "not going to change, to my knowledge, with these organizational recommendations, at all."

Brig. Gen. Michael A. Hamel, USAF's director of space operations and integration, said planning teams have been formed to address organizational and budget issues. Other services were invited to participate, and they did so.

While Rumsfeld's initiatives didn't address operational requirement definition and validation, Hamel said, "We [the Air Force] believe that's going to continue as it has in the past."

By that, Hamel means that any service or command that believes it has a need for space capabilities will take the usual path of writing a mission needs statement and defining its own operational requirements, which will then be vetted by the Joint Requirements Oversight Council.

Lt. Gen. Robert H. Foglesong, USAF's deputy chief of staff for air and space operations, re-emphasized that point in a recent briefing for the press.

"Each service will have its own unique requirements for space," said

Foglesong. "That process remains the same. If the Navy has a unique requirement, it comes into the Joint Staff, the JROC. ... [It] is a joint requirements committee that looks at validating requirements. That all happens the same way it always did. Each service will still retain its authority to come in and identify service-unique requirements."

Gen. Ralph E. Eberhart, the USAF officer who commands the multi-service US Space Command, notes that the new system has a built-in safeguard. "There's always a court of higher appeal," Eberhart told the Senate Armed Services strategic subcommittee on July 11. "That court of higher appeal will be the deputy secretary of defense and the Secretary of Defense. ... The Air Force [leaders] must be good stewards here. They must be objective. They must be fair across the board, and if they're not, people will cry foul, [and] it'll go to the Secretary of Defense."

Hamel pointed out that the preponderance of space capabilities today really are joint in nature. Example: satellite communications, all of which support joint warfighting.

The space initiatives are meant to put a sharper focus on space and promote a stronger advocacy by giving the Air Force DOD-wide responsibility for planning, programming, and budgeting.

"We will continue to see other services and agencies acquire systems that can exploit space information and communications and the like," Hamel said, "but we would imagine we would be responsible for ... pulling together the integrated plans and developing the overall programs and roadmaps across the DOD, and so we've had to be talking with the other services."

Mauldin pointed out, however, the services operate in different mediums and with different platforms, and so there will always be some differences in priorities.

"We will all continue to rely on established organizations and procedures to accomplish fair and equitable treatment of space," Mauldin said. The Navy space commander added that the key is to "get your facts straight" and then make a credible case for your service's needs.

Rumsfeld's new plan makes the undersecretary of the Air Force the acquisition authority for space pro-

grams DOD-wide. This official's power is far from absolute. The Office of the Secretary of Defense still maintains the ultimate authority over all of the military space enterprise. The Joint Staff and JROC are still the authority on requirements. The commander in chief of US Space Command remains the authority on space operations.

Space Control

Of the issues now before the armed services, space control rates high in priority. Space control means having the ability to assure access to space for the United States while denying access to an enemy. Space control comprises surveillance, protection, negotiation, and prevention.

The Air Force dominates in this area. However, while little discussed, the Army and Navy have both done substantial work in the field of space control.

The Army has long experimented with space-control weapon programs such as the Kinetic Energy-Anti-Satellite (or KE-ASAT) system. One concept calls for building a kill vehicle with a fly swatter-type sail that could come close to a targeted satellite and bat it into a never-ending journey into deep space. This would deny the use of its capabilities to an adversary while not destroying it and creating more space debris that could endanger a US satellite.

This fly-swatter system has been tested. Plans call for building three vehicles that will be put on the shelf for later use as test vehicles.

Army KE-ASAT program officials are working toward a future test in space, though the date is not yet set. Sen. Bob Smith (R-N.H.), a proponent of KE-ASAT, told Army Secretary-nominee Thomas White at his nomination hearing that the service needs to start showing stronger support for the program. If not, said Smith, "then maybe it's time to move it out of the Army and put it in the Air Force, where somebody might believe in the program."

Another Army space-control effort was the Data Collection Experiment, which used the Army's Mid-Infrared Chemical Laser (or Miracl) to send out a concentrated beam of light that "dazzled" an aging US satellite orbiting over White Sands Missile Range, N.M. The laser beam

temporarily blinded the satellite without destroying it.

The Army has set up a space electronic warfare detachment and taken operational control of the Big Crow system, two wide-body aircraft crammed with classified electronic equipment. The system serves as a test platform and is a possible space-control asset of the future.

The Army is examining other similar ideas and is creating several operational requirement documents, which is the first step in developing any program.

On the soldier side, the Army has activated its first space-support battalion, a dedicated space-control unit. Educationally, the Army has begun what it calls "Functional Area 40," a cadre of officers whose career designation will be space operations.

"We're looking at standing up a space division as part of the Army Staff so the Army Staff can be structured to provide support," Cosumano said.

The bulk of Naval Space Command work is in space control, leaning heavily on surveillance, Mauldin said. The Navy needs to warn seagoing commanders when a hostile reconnaissance system passes overhead.

Legacy of Sputnik

Navy involvement traces back to the shock of the Soviet Sputnik launch in 1957. The Defense Advanced Research Projects Agency initiated its Dark Satellite program, which became the Navy's space surveillance system, familiarly known as the "fence." It detects anything that overflies the continental United States, as do ocean-sweeping reconnaissance satellites. It is now undergoing a service-life extension program.

Even after 40 years of service, the fence system still constitutes a critical sensor within US Space Command. As Mauldin notes, every proposed future joint space surveillance architecture includes the fence.

The Navy is evaluating its continued role in space control and how it should evolve. Future improvements are still in the talking and planning stages.

"Too early to say where it will go," Mauldin observed, "but the interest is definitely there."

The Navy is reviewing its space-technology programs and expects to

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continue research and development programs that may lead to advanced oceanographic sensors, a unique requirement for the service.

Naval Space Command also stands "space watch" around the clock, tracking surveillance satellites, running communications satellites, and providing tactical downlink, multi-spectral imagery, and space support to deployed sailors and Marines.

It also runs the Alternate Space-Control Center for US Space Command's primary center at Cheyenne Mountain AFB, Colo.

"We are not expecting to lose any programs or operations" in the reorganization, Mauldin said. "What I expect to gain is an increased synergy and cooperation among the services with better coordination between the various facets of space programs."

For sailors, education and training are also under the microscope. Recently, the service formed a new training and space education division within Naval Space Command. This has ties to the Naval Postgraduate School. Currently the Navy has a space subspecialty but not a clear career path in space.

"There's little doubt in my mind that they [Navy students] can use space knowledge throughout their careers, something that we are seriously beginning to address," Mauldin said.

Army and Navy officials also are taking a close look at the larger picture. The Navy is taking on the issues of space community management and how it fits within the larger space and information warfare command-and-control community. Plans called for the Army Chief of Staff, Gen. Eric K. Shinseki, to receive a formal Army force management analysis examining how to use its space systems and shape its programs. Which programs live or die will be determined by the outcome of the Quadrennial Defense Review, budget deliberations for the Fiscal 2003 budget, and Rumsfeld's military reviews.

The Air Force for many decades has provided the great bulk of US military space funding, perhaps as much as 85 percent of the DOD total, according to some analysts. At times, Army and Navy officials engage in behind the scenes grousing

at the fact that USAF overshadows their contribution and therefore enjoys most of the political and decision-making clout.

Until the advent of the new Administration's management changes, overall space budgets had not been as visible as they could have been.

Rumsfeld's initiatives addressed the perceived need to elevate space on the national security agenda, but the funds for space programs did not see a surge in either the \$5.6 billion Fiscal 2001 supplemental request or in the amended \$328.9 billion Fiscal 2002 defense budget released in late June. Both spending plans focus on quality-of-life measures for service personnel and service combat readiness.

New Conflicts?

However, the Fiscal 2002 DOD budget does request some increased funding in the areas of space-control exercises as well as for the initial program definition for an operational space based radar, Hamel said. Rapid, sustained spending growth in the military space arena could reignite serious service conflicts.

Army Space and Missile Defense Command will continue to run the operational Army Space Command, manage the Army astronaut program, oversee research and development in its space battle lab, and develop requirements and concepts for new communications satellites and other space products that soldiers need to conduct operations, from peacekeeping through high intensity warfare.

"We see that there's potential ... to allow some of those products that were not necessarily accessible to the warfighter to be more accessible," Cosumano said. "That's very, very important. When you have a lighter, more agile force it's important to be able to see first, understand first, and act first."

Those are the qualities the Army emphasizes for its future force, and space capabilities are critical to the power of future Army platforms. With space assets, the Army could use fewer, smarter platforms and better protect its soldiers.

"Over the next two years," said Cosumano, "I'd like to be able to normalize space. ... We really want to make it a part of our everyday [combat plans]."

In fact, a recent wargame played at the Army War College, Carlisle

Barracks, Pa., examined the use and protection of space assets as part of a larger simulation examining concepts of fighting wars with the Army of tomorrow. SMDC's Collins said the game reinforced the Army's belief that space is a vital component in future Army command and control.

The Army would also like to have, at some point in the future, the capabilities provided by a space based radar with a ground moving target indicator ability, Collins said. The Army is working with the Air Force and the NRO in this area. Last year, Congress killed a similar program, Discoverer II, but it remains popular in the armed services. The space based radar "would have a bigger footprint than the [E-8] J-STARS aircraft," said Collins. "And what happens if J-STARS can't fly because of weather or some other reason?"

Plans call for the Air Force's internal realignment to be finished by Oct. 1, Hamel said. The military commanders and their leaders received the official documents during the summer. The largest action calls for the organizational movement of Space and Missile Systems Center, currently under Air Force Materiel Command, into Air Force Space Command.

As for the Army and Navy, the watchword is cooperation, mixed with a large dose of caution.

"Space is bigger than any of us," said Mauldin. "I suspect the real answer is that none of us really want to go it alone. With a focused effort, the real winner will be the warfighter. That is my goal."

Eberhart, the head of US Space Command, believes the Air Force will meet the test. "In terms of being good stewards [as] executive agent, I personally believe the Air Force will step up and do exactly that. ... We'll be much smarter about this in a couple of years as we look back and talk to other services and hear from them that their interests have been represented properly." ■

Ann Roosevelt is executive editor of Space and Missile Defense Report and a reporter with Defense Week, a defense-related publication based in Washington, D.C. This is her first article for Air Force Magazine.