

Pathfinder, Vandenburg
Air Force Base.
Lockheed (Russ Underwood)

Searching for Policy Coherence: The DOD Space Architect as an Experiment

By JOAN JOHNSON-FREESE and ROGER HANDBERG

In an era of declining resources, the search for ways to control and reallocate expenditures has become more focused. Pentagon responses to cost cutting have varied depending on the matter at hand. With regard to military space the answer has involved forming specialized organizations, a time-honored means of dealing with change. Organizational reform can represent a major attempt to introduce change or a mechanism for deflecting real change. This article examines the potential of the recently established Office of the DOD Space Architect.

Prologue

Reform in the area of military space began in 1993 at the direct instigation of key chairmen of congressional committees. Interestingly, several studies completed around that time did not find organization to be a problem. Control and cost savings, it was decided, could be achieved by other means.¹ Reorganization did not become a priority until other remedies were exhausted. However, Congress expressed concern over the apparent inability or unwillingness of the services to coordinate their space efforts, which led to delayed program implementation and budget overruns. Congress wanted a plan that related space programs to funding requests. This concern was not resolved for two and a half years as the Office of the Secretary of Defense, defense agencies, services, and Department of State worked through the various aspects of the problem.²

The challenge was compounded by fears expressed publicly by the other services whenever the Air Force sought to become the decision-maker for all military space activities.³ Historically the Air Force has been the dominant space service, a preeminence established by its continuing interest and spending rather than because it is either the exclusive or even primary user of space systems. As users each service has an interest in the availability and flexibility of such systems. Thus while willing to allow the Air Force to assume the lead, the other services are unwilling to forego a space role altogether. Their priorities admittedly lie elsewhere and space represents an exploitable asset rather than an end in itself. This is a factor that favors the Air Force in the long term. Historically, it was the Army that turned over Werhner von Braun and his German rocket team

from Redstone Arsenal to the National Aeronautics and Space Administration (NASA) in exchange for support to field additional divisions, but only after a protracted and heated battle which reached the White House. Assurances were sought that the future role of the Army in space was not being relinquished, only von Braun and his expertise. The Army and Navy still advance the same demands in their vision statements.

The institutional memory of the Army is even longer given disputes with the Air Force over tactical air support during the late 1950s and early 1960s, the heyday of Strategic Air Command. In response to a perceived neglect of their needs by the Air Force, large rotary wing air forces were organized under Army control, partially recreating the air forces of World War II. Dependence on support from another service is a situation that most fervently seek to avoid.

Solving military space coordination involved several iterations, with the solution ultimately coming down to creating two staff positions and one board. The posts of Deputy Under Secretary of Defense for Space and the DOD Space Architect were both chartered in early 1995. But the Joint Space Management Board (JSMB) did not take shape until late 1995 after lengthy discussions on membership and authority or—as one participant put it—on the seating plan. The board grew to 26 members to prevent any potential player from being excluded by design or inadvertence. Consequently, it largely became a vehicle for the major members to meet and the minor ones to raise questions or objections. Given the group's size, the adage that “he who takes notes deciphers the decisions that were made” became a reality. Policy guidance, if any is forthcoming, will likely be reduced to the lowest common denominator.

The restructuring of military space management essentially ended by adding more players to the process and introducing more layers of bureaucracy for military space programs to penetrate. Among the services no programs were transferred, consolidated, or eliminated; and no further space staff positions were established. Rather than taking risks, the players tacitly agreed to simply keep what they had, especially the smaller ones. The victory of the weaker players came only insofar as the so-called “space czar” was pushed into relative irrelevancy in terms of actual decisionmaking. The Air Force was reassured that any space architect would function within its own reporting chain. The congressional mandate has been met in principle and on paper even though the result is more bureaucratic than programmatic coordination. That protective response has a familiar ring because defense budgets decline while pressures to perform often increase. Protecting the stake of every

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Space Shuttle
Discovery.

service in space and its relative budget share were critical goals and were achieved, if not entirely to the satisfaction of all services at least enough to meet their essential needs.

Space Architect

The organizationally more tenuous new position, the DOD Space Architect, must be viewed against a backdrop of interservice politics. It might be less tenable over the long haul, with continued support from above and a consequent decline in parochialism from below. Tradition has shown, however, that as the original senior incumbents depart, attention and commitment to such a position by their successors who have no stake in it will wane. They will have programs of their own to support, thereby allowing the return to military space politics as usual.

SPACECOM command
center, Cheyenne
Mountain.



The DOD Space Architect derives his authority from a memo issued by the Under Secretary of Defense for Acquisition and Technology in 1995 that defines his responsibilities as consolidating space missions and systems, eliminating vertical stovepiping, integrating acquisition and future operations, and thereby improving space support to military operations. But in reality his office is less robust when it comes to the fine print: “the architect will have significant influence over acquisition decisions but will have no direct acquisition authority per se. . . . For day-to-day activity, the architect will coordinate directly with the performing organization.”⁴

The DOD Space Architect is linked to subordinates or equals for purposes of coordination. The only command line extends to his reporting authority, namely, the Under Secretary of Defense for Acquisition and Technology.



NAVSTAR global positioning system.

The former CEO of Avis, Robert Townsend, who has earned a reputation as a management consultant, made an observation that seems to apply in this situation:

*The thing that shows up a problem on an organizational chart is the dotted line . . . some compromise has been made in the organization. Some problem has not been faced, it has not been solved, and it is an unsatisfactory solution. You can look at an organizational chart and just pick the problems without even knowing what the company does . . . by looking at the dotted lines. They are a sign of a problem, sign of muddled thinking, sign of compromise, and a sign of unhappiness, frustration, and mediocre performance.*⁵

Townsend's comment identifies the problem with the space czar's position—he does not command or control anything, contrary to the impression conveyed by his title.

The first architecture developed was released in August 1996 and deals with military satellite communications (MILSATCOM). It is to be followed by architectures on space control and satellite operations. Originally it was thought that the office of the DOD Space Architect would develop several alternatives for presentation to JSMB, which would choose among them, but that was not feasible because of the cumbersome nature of the board. Instead a single architecture was developed to pass to the services for consideration in acquisitions. Furthermore, it was envisioned that

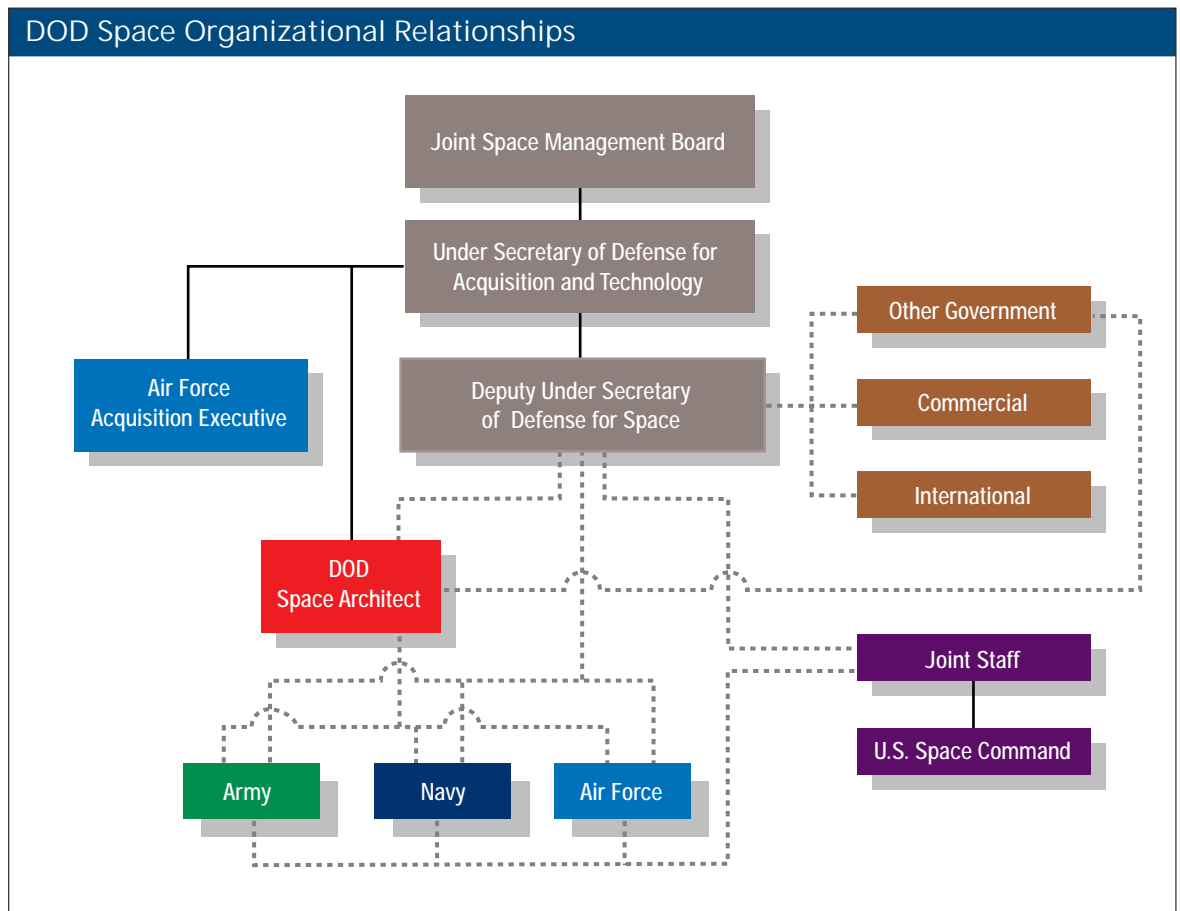
the role of the Space Architect in implementation would be minimal, fundamentally that of a monitor. However, moving MILSATCOM architecture to the services proved difficult, and the architect's office needed to play an active role. Indeed, another full year of transition planning was scheduled, indicating a reluctance on the part of the stakeholders to accept the architecture without hesitancy. In reality, they were not compelled to embrace it at all.

Frankly, the DOD Space Architect is a staff position with no direct lines to command authority (see figure on opposite page). In a hierarchy such as the military, that can be an Achilles heel of fatal magnitude because one bargains from a position of known weakness. That is especially a problem for a position with high external (congressional) expectations for success. Rather than responding, any service unhappy with his plans or advice can feel relatively safe stonewalling or appealing to higher levels of authority beyond the access of the Space Architect. That type of day-to-day grinding down by opponents is what undermines such "coordinating" positions over the long haul.

By virtue of his place in the hierarchy, the DOD Space Architect has no real constituency. Service space chiefs relate to their services while the Space Architect competes with the commander in chief, U.S. Space Command (CINCSpace), who speaks as an operational commander, a much more authoritative role. CINCSpace has indicated that his command is entrusted with most military applications.⁶ In addition, he leads the effort to develop joint space doctrine that will expand the utilization of space from a single asset to an aggregate of capabilities, a much-needed philosophical step forward. Moreover, as discussed earlier, when such positions are created by civilian officials who depart—either voluntarily or in a routine political reshuffling—the positions become less tenable. Subsequent under secretaries will arrive with their own agendas on how to achieve the coordination demanded by Congress, or at least on how to appear responsive.

There are serious problems with placing the position under the rubric of acquisition because it may exacerbate an already difficult situation since that office is "buying" rather than prioritizing goals. Theoretically, such decisions should be made before reaching the acquisition level. If not, the problems worsen since priorities have not been agreed upon. With a declining budget (relative to inflation), that is a recipe for disaster both fiscally and operationally.

The DOD Space Architect is further weakened and confused by the fact that the other new position, the Deputy Under Secretary of Defense for Space, has leverage over the space acquisition



Source: Department of Defense Space Program: An Executive Overview for FY 1998–2003 (March 1997).

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process. Beyond the new positions is the realm of space in the intelligence community. The DOD Space Architect assists the deputy under secretary and submits proposed architectures to his office; this new official also has responsibility for formulating a national security space master plan that apparently provides a framework for future architectures developed to fit into joint space doctrine. There are lots of plans but little evidence of change.

Furthermore, the plan's recommendations on space-based warning, reconnaissance, and intelligence systems compete with advice from others within OSD, such as the Assistant Secretary of Defense for Command, Control, Communications, and Intelligence who has direct access to key participants in decisions on the system. Meanwhile, other players such as the Defense Mapping Agency and the Navy have initiated projects which compete with programs being developed within the office of the DOD Space Architect.

The Lesson

Although the intent of this analysis is not to dwell exclusively on the negatives, the Space Architect does appear to have been deliberately designed to be anything except a central player in military space. The responsibilities implied by his title and charter are not matched in reality with either authority or muscle, especially in terms of budgetary clout. The office will likely produce highly competent, technically sophisticated architectures which will be viable only as long as all parties concur or sufficient political will exists above the level of the DOD Space Architect to enforce the plan through real budget choices.

At the second Space Policy and Architecture Symposium held in February 1997, laudatory comments abounded on the efforts to develop MILSATCOM architecture. It was emphasized that the process provided a forum for healthy discussion. But the jury is still out on the issue of transition, and that will determine whether the architecture is a legitimate basis for planning or

simply an academic exercise. Legacy programs and already-planned modernization programs provide near-term spikes in implementation, beyond cultural and turf issues.

With regard to congressional interest, the object was a realistic long-term plan for military space activities that would be followed within reason to maximize declining budgets. However, initial indications are that developed MILSATCOM architecture is based on optimistic projections of its cost and hence is not a near-term money-saver. Congress is unlikely to endorse a plan that is expensive in the near term in hope of long-term savings. Furthermore, an enforcement mechanism is needed. Congress may have to act, at least in terms of having the services include architecture in building individual program objective memoranda (POMs) and future years defense programs (FYDPs). Members of Congress want the office to succeed. Perhaps the irony is that Congress wants DOD to adhere to a plan subject to its own sometimes fickle annual review.

Without some form of enforcement, implementation is unlikely given the history of defense acquisition. Past broad-based acquisition reform has been characterized by dramatic public gestures: initial successes and ultimate ineffectuality once the spotlight is shifted.⁷ The issue is not even willful resistance in particular (though that has occurred), but rather the effects of inertia. Changing work habits is difficult even where organizational leadership is highly motivated. Given a crisis or near crisis atmosphere at higher levels, follow-through becomes hard, especially if the old system works. It might function more efficiently or cheaply with reform, but that is next week's problem. Unfortunately, next week never comes—the issue is how to handle the problem now.

In at least one instance of motivated leadership, however, near-term programmatic success in acquisition reform has shown promise. The suggestions raised concerning control and reduction of costs associated with space rather than reorganization have made headway. Indeed, the Air Force evolved expendable launch vehicle (EELV) program has focused on streamlining the developmental acquisition strategy to bring down launch costs.⁸ A specific directive as part of that strategy is to limit the management bureaucracy. If support and momentum can be sustained until the vehicles are built, something meaningful will have been accomplished, though the vehicles will then likely be absorbed into “the system.”

Fads come and go, but policy evolves slowly. The common preoccupation of the bureaucracy is logrolling to protect one's interests. The architectures developed will probably take their place among the growing body of space policy studies,

particularly space transportation studies, which futurists have used to generate a cottage industry. Change will occur but much more slowly than desired by Congress, which will probably revisit the issue in several years to discover what went wrong. The answer then, as now, will be that good people cannot make untenable systems work, especially when budgets decline. The DOD Space Architect is not an experiment that failed; the conditions just were not ripe for such a position. **JFQ**

NOTES

¹ Library of Congress, Congressional Research Service, Science Policy Research Division, “Military Space Programs in a Changing Environment: Issues for the 103rd Congress,” prepared by Marcia S. Smith, 92-879SPR (December 1, 1992); and U.S. Government Accounting Office, National Security and International Affairs Division, *Military Space Programs: Comprehensive Analysis Needed and Cost Savings Available*, GAO/NSIAD-94-164 (April 14, 1994).

² A succinct summary of the negotiations and problems is found in John L. Insprucker III, “The New DOD Space Management Process: A Critical Analysis” (Maxwell Air Force Base, Ala.: Air War College, April 1996).

³ Steve Watkins, “Space Chiefs Assail McPeak Plan,” *Air Force Times*, April 18, 1994, and Steve Weber, “Lionetti Defends Army's Space Role,” *Army Times*, August 29, 1994, p. 30.

⁴ *Ibid.*

⁵ Robert Townsend, *Still Further up the Organization*, Nightengale-Conant Audio, 1989.

⁶ Howell M. Estes III, “Space and Joint Space Doctrine,” *Joint Force Quarterly*, no. 14 (Winter 1996-97), p. 61.

⁷ See Brenda Forman, “Wanted: A Constituency for Acquisition Reform,” *Acquisition Review Quarterly*, vol. 1, no. 2 (Spring 1994), pp. 90-99.

⁸ Robert K. Steele and Peter L. Portanova, “EELV: New Acquisition Strategy for a New Launcher,” *Aerospace America*, no. 7 (July 1996), pp. 38-43.