

AU/AWC/131/1998-04

AIR WAR COLLEGE

AIR UNIVERSITY

**DOD SPACE MANAGEMENT AND USCINCSpace:
GETTING READY FOR THE SECOND ROUND**

by

Robert H. Holmes, Lt Col, USAF

A Research Project Submitted To The Faculty

In Partial Fulfillment of Course Requirements

Advisor: Dr. Joan Johnson-Freese

Maxwell Air Force Base, Alabama

1 April 1998

Disclaimer

The views expressed in this academic research paper are those of the author(s) and do not reflect the official policy or position of the US government or the Department of Defense. In accordance with Air Force Instruction 51-303, it is not copyrighted, but is the property of the United States government.

Contents

	<i>Page</i>
DISCLAIMER	ii
PREFACE	iv
ABSTRACT	v
THE DOD SPACE MANAGEMENT INITIATIVES.....	1
SETTING THE STAGE.....	4
FOG AND FRICTION -- DOD SPACE MANAGEMENT IN 1995.....	10
<i>MIRRORING</i> ...USCINCSpace AND THE SPACE ARCHITECT.....	15
<i>HOT WASH</i> ...LESSONS LEARNED AND RECOMMENDATION.....	23
BIBLIOGRAPHY	28

Preface

Leadership and management of space operations for national and military missions are not unlike other activities. However, the typical comment from space warriors while preparing this paper was... "you don't understand... space is different." Space is difficult and confusing because it's *space*... and we make it difficult. In the fifties, space took a rocky start in the military then shared turf with NASA and the NRO. Today the actors are sizing up space turf in the aftermath of the cold war and dwindling resources.

As a career combat control officer, this analysis is as an *outsider*, but with questions. The views in the analysis are based on direct observation of NAF, MAJCOM, and unified commands that manage activities as demanding as space and who understood the nature of a joint unified command. More often than not, when discussing the **US Space Command**, it became apparent many people thought we were talking about the component, **Air Force Space Command**. As a personal observation, the space community may not grasp the importance of USCINCSpace, and what he could do for *joint* space operations. Hopefully, the actors are realizing simplification and normalization of space management will benefit all.

Abstract

The DOD Space Management Initiatives in 1994 and 95 established oversight of military space programs by establishing a Deputy Under Secretary for Space and a number of offices and agencies. In four years many changes have occurred and the DOD is in the process of restudying military space management. One particular office, the DOD Space Architect was to integrate space architectures and systems and achieve efficiencies in acquisition and future operations. Many of the architect's responsibilities resemble or duplicate USSPACECOM activities. In any new round of management initiatives, DOD strategic planning and acquisition for military space should maximize the responsibilities and functions already assigned to USCINCSpace, rather than maintain overlapping and redundant bureaucratic offices.

Overall analysis of the DOD Management Initiatives show layering and overlapping responsibilities in terms of developing military space architecture and overseeing acquisitions. Specific analysis of the DOD Space Architect's charter and USSPACECOM's mission and organization show redundancy and duplication of two standing military activities. This analysis and a comparison of activities performed by peer functional CINCs support greater involvement by USCINCSpace in the overall management of military space.

Chapter 1

The DOD Space Management Initiatives...

"Well, we're going to fix that"

- Representative John Murtha (DPA), during House Appropriations Committee questioning of the management of national and military space programs in 1992

"Fixing" Space Management in 1995

On 14 September 1995, the Under Secretary of Defense for Acquisition and Technology (USD(A&T)), Paul Kaminski, announced Major General Robert S. Dickman, USAF, would assume responsibilities as the Department of Defense's (DOD) Space Architect. At that time, the establishment of the DOD Space Architect was the latest step within the department to improve space management and organization. In the same announcement, Mr. Kaminski alluded to previously establishing the office of the Deputy Under Secretary of Defense (DUSD) for Space in December 1994, and on 6 August 1995 named Robert V. Davis to that position.¹ On first reading, a reasonable assumption was General Dickman would work for Mr. Davis as the sole architect for military space. According to the charter creating the position, the architect would consolidate DOD space missions and system architecture development into a single organization integrating space architectures and systems; eliminate unnecessary vertically stovepiped programs; achieve efficiencies in acquisition and future operations through

program integration; and overall improve space support to military operations.²

However, after some study, this announcement might alternatively be viewed as the latest act of layering and overlapping responsibilities in terms of developing military space architecture and overseeing acquisitions. Moreover, the creation of bureaucratic and layered staff positions might have posed questions of necessity and propriety regarding an already standing office with operational and oversight responsibilities for military space, the Commander in Chief, United States Space Command (USCINCSpace), then and now, General Howell Estes, USAF.

Thesis

This evolution provides a basis to examine the duties and responsibilities of the DOD Space Architect (as originally established in the DOD Management Initiatives), compare them to similar responsibilities under the jurisdiction of USCINCSpace, and note the overlap and redundancy. In the next round of management initiatives for DOD space, greater and meaningful use of the responsibilities and functions already assigned to USCINCSpace would better serve strategic planning and acquisition for military space, rather than bury responsibility among overlapping offices in the DOD. Additionally, the specific duty for military space architectures should be assigned to USCINCSpace, rather than to a second general officer and military organization in competition with and overlapping the CINC.

Specifically, the course of analysis begins with a background examination of the initial round of DOD management initiatives and current status. Following that, an examination of the two chief military actors - USCINCSpace and the DOD Space

Architect including a close examination of US Space Command's Space Requirements and Planning System (SRPS)³.

The resulting analysis supports the need to reduce overlap and redundant activities by focusing on USCINCSpace as a primary partner in DOD Space Management. Given the ideas in this presentation, the latest round of reorganizing space management should address the question of layering responsibility in a staff when there is a commander-in-chief with authority and accountability to take the same responsibilities and perform the same functions.

Notes

¹ Department of Defense, Press Release, 14 September 1995.

² Department of Defense, Memorandum, DOD Space Architect's Charter, 8 March 1995.

³ US Space Command, *Vision for 2020*.

Chapter 2

Setting the Stage

Background

The *Executive Overview of DOD Space Programs* decries the management initiatives for military space and the creation of a number of offices and agencies, one of which was General Dickman's post as a space architect. Additionally, the overview describes the impetus for change as three years of Congressional concern, as well as the DOD's, over how "best to manage *national security space*" (emphasis added). Congressional criticism focused on the basic processes governing defense and intelligence space programs and policy, requirement coordination, resource management, systems acquisition, space operations and training, and the level of support to the warfighter. A parallel, DOD-wide review of the full range of national security space activities, including DOD's relationship to the Intelligence Community, laid the basis for a series of management initiatives.¹

While the above gives the impression of a spirit of cooperation, Frank Sietzen, Jr., in an article for *Space Times*, offers that the initiatives were born on the part of the DOD over concern from the House Appropriations Committee, chaired by Rep. John Murtha (D-PA). In 1992, Rep. Murtha led the hearings asking tough questions about the future planning and acquisitions for military space, but the DOD answers did little to assure that

meaningful coordination of space matters was occurring within the Pentagon. Murtha's reply to the DOD... "Well, we're going to fix that".² The following is a recap of the DOD management initiatives resulting from the Sub-committee hearings.

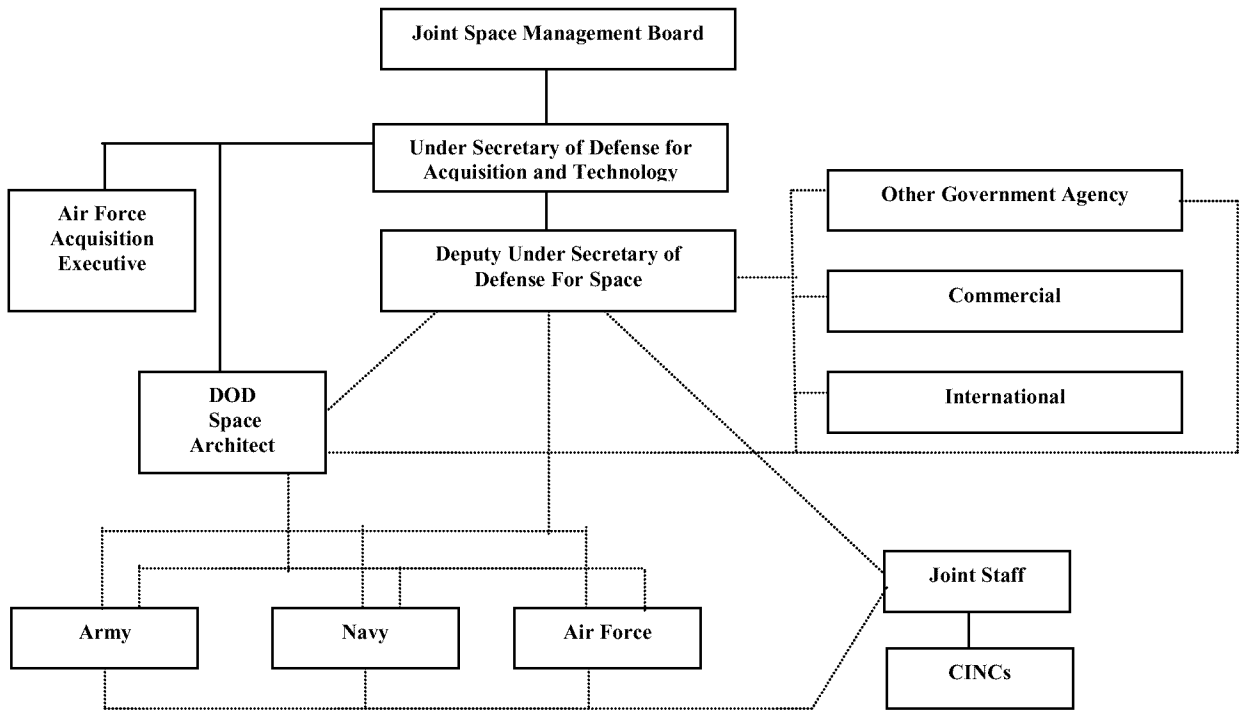
The lead-off initiative, DOD consolidated responsibilities and functions for military space within the Office of the Secretary of Defense (OSD) into a single new organization under a Deputy Under Secretary of Defense for Space (DUSD (Space)), and laid the groundwork for the remaining initiatives. In the first round, the "organization", under DUSD (Space), included the officers, agencies and processes with resulting relationships described below (Table 1) and shown in a wiring diagram (Figure 1).

TABLE 1. Offices and Agencies Created as Part of the DOD Space Management Initiatives 1994-95³

OFFICE or AGENCY	RESPONSIBILITIES and FUNCTIONS
Deputy Under Secretary for Space (DUSD(SPACE))	<ul style="list-style-type: none"> • Reports directly to Under Secretary of Defense for Acquisition and Technology (USD(A&T)) • Principal staff assistant, advisor, and policymaker for space matters • Oversight of space architectures and acquisition programs • Responsible to interface with US Congress and governmental agencies • Represents SECDEF at all interagency deliberations and international negotiations for space matters • Provides DOD policy and planning guidance for space activities (shared with Assistant Secretary for Command, Control, Communications, and Intelligence ASD(C3I) and includes use of national systems) • Oversees development of integrated space architecture (ASD(C3I) oversees functional C3I architecture) • Oversees space acquisition programs (shares with ASD(C3I) oversight of space system user equipment) • Assesses future space requirements; recommends changes to space specific technologies
Assistant DUSD (Space Systems and architecture) (ADUSD(SS&A))	<ul style="list-style-type: none"> • Reports to DUSD(Space) • Oversees development and execution of space programs • Development of integrated space architectures • Ensures programs are executed IAW SECDEF guidance • Responsive to requirements generated by JCS and services • Coordinate and oversee activities of the Space Architect
DOD Space Architect	<ul style="list-style-type: none"> • Reports to the DAE through the AFAE • Responsible to develop integrated defense space architecture • Coordinate space architecture with counterparts in Intelligence community
Joint Space Management Board	<ul style="list-style-type: none"> • Provides forum for senior management to address defense and intelligence space policy • Co-chaired by the USD(A&T) and the Deputy DCI
Joint Requirements Oversight Council	<ul style="list-style-type: none"> • Reviews and validates military intelligence requirements; relays to the DCI
Overarching Integrated Product Team	<ul style="list-style-type: none"> • Supports the Defense Acquisition Board • Reviews acquisition responsibility for service unique space programs

The organization represents overlap, layering, and directed coordination (in the absence of authority to author or have primary input to programs). In a following section, this analysis looks closer at the relationships in the DOD space management organization. However, since 1995, things have changed and the analysis must take the current status of the changes into account.

Figure 1. DOD Space Organization Relationships Established with Management Initiatives 1994-95⁴



Current Status

Well in two years...DUSD (Space) is gone, and the DOD Space Architect is looking for a new boss. Since September 1995, when the DOD Space Architect was announced, significant events and changes have occurred which will bear on the future of military space, and particularly the architect. The changes were born in Defense Secretary William Cohen's Defense Reform Initiative (DRI), November 1997, which mandated reduction in the DOD staff and bureaucracy.⁵ The following is a short review of these reduction initiatives in DOD space management.

DUSD (Space) Disbanded. As part of the DRI, Deputy Defense Secretary John Hamre disbanded the office of DUSD (Space). In a 13 December 1997 memo, Mr. Hamre directed this action transferring space policy functions to the Under Secretary of Defense for Policy (USD (Policy)), and said, " the specific course of action for the remaining DOD space architecture, acquisition, requirements, and technology requirements remain to be defined."⁶ This action created another shift in military space management, and opened new questions about functional and oversight responsibilities within DOD and the services.

Director of NRO and USCINCSpace Study New Space Management. Along with the disbanding DUSD (Space) and to answer the open questions, Mr. Hamre directed Mr. Keith Hall, dual hatted as the Assistant Secretary of the Air Force for Space and Director of the NRO, and General Estes to conduct a study and recommend a new space management structures.⁷ (This action is the second time in a three-year period to institute management initiatives for overseeing DOD space.) In addressing a "course of action"

for the management issues above, Mr. Hamre directed the recommendations "reflect the department's overall objectives of integrated program planning, - efficient resource allocation, and accountable management", and that the JSMB be the "point of departure" for the for these recommendations.⁸ To meet Mr. Hamre's direction, Hall and Estes formed a steering group (with representatives from NRO, USSPACECOM, the Joint Staff, the DAT, and the ASD (C4I)) to recommend the best way to reorganize and oversee space management, acquisition, and architecture. As part of the study, the NRO-USCINCSpace study is to also provide a recommendation for combining the offices of the NRO and DOD Space Architects, and is addressed below. The group is to report to Mr. Hamre in late February 1998.⁹

Combining NRO and DOD Space Architects. Additionally, Mr. Hall and General Estes are to examine the space architects in terms of to whom should they report, and on a larger scale, the potential for consolidation under a single space architect. Reportedly, the two separate architects were created two years ago because of concerns in both the defense and intelligence communities.¹⁰ At the present, Mr. Hall is dual-hatted as the Director of the NRO and the Assistant Secretary of the Air Force for Space, thus General Dickman, as the DOD Space Architect is reporting to Mr. Hall in his role as assistant secretary.¹¹

Space as an Area of Responsibility. Concurrent with the debate over the architects, there is an ongoing debate to appoint USCINCSpace in the Unified Command Plan (UCP) as responsible for space as an area of responsibility (AOR). When this occurs, USCINCSpace would have *regional* versus functional command in the UCP.¹² Accordingly, USCINCSpace would have increased responsibilities as a regional unified

command headquarters and the space mission areas, than in his role as a supporting functional CINC.¹³

Notes

¹ Deputy Under Secretary of Defense for Space, Executive Overview: *DOD Space Management Initiatives*.

² Sietzen, Frank, Jr. "The Re-Inventing of DOD Space." *Space Times*, September-October 1997, 15-18.

³ Deputy Under Secretary of Defense for Space, Executive Overview: *DOD Space Management Initiatives*.

⁴ Ibid.

⁵ Inside the Air Force, 23 Jan 98, 9.

⁶ Ibid.

⁷ "US Defense Studies Studies Space Policy Structure." *Space News*, 26 January-1` February 1998, 2.

⁸ Inside Air Force, 23 Jan 98, 9.

⁹ Ibid.

¹⁰ Ibid.

¹¹ Ibid.

¹² Estes, Gen Howell M.,III. Interview with *Aviation Week and Space Technology*, 6 August 1997.

¹³ Morris, Lt Col Mark A. "Who Will Command the High Ground? The Case for a Separate Area of Responsibility for Space." Maxwell AFB, Ala: Air War College, 1998.

Chapter 3

Fog and Friction -- DOD Space Management in 1995

Analysis

An 8 March 1995 DOD memo outlined the establishment of a Deputy Under Secretary for Space (DUSD) (Space) to be the principal OSD staff assistant and advisor for space matters with “broad responsibilities and functions”.¹ As described in the previous section, the DUSD (Space) had responsibility for developing, coordinating, and overseeing the implementation of DOD space policy. Secondly, the DUSD (Space) had oversight of space architectures and how the services’ acquisition programs fit into that architecture. Frankly, this responsibility was a bureaucratic “bag of worms” since the Assistant Secretary for C3I (ASD (C3I)) remained responsible for oversight of space acquisition programs, the USD (A&T) acquisition responsibilities remain unchanged, and the Defense Acquisition Board committee structure would expand to include a Space Committee. Finally, the DUSD (Space) was to oversee space missions and systems architectures and insure integration of DOD space missions. As a corollary function, the DUSD (Space) was to interface with the Congress, other U.S. Government agencies, and other OSD components. With respect to architectures and the oversight of military space community planning, enter two more actors, the Assistant Deputy under Secretary of

Defense for Space Systems and Architectures (ADUSD (SS&A)) and the Space Architect.²

Again as outlined earlier, the ADUSD (SS&A) was to be responsible for overseeing the development and execution of space programs, and the development and integration of space architectures for the DUSD (Space) and the USD (A&T). Additionally, the ADUSD (SS&A) was responsible for ensuring programs are executed in accordance with SECDEF guidance, responsive to the requirements generated by the Joint Staff and Services. Finally, the ADUSD (SS&A) is *responsible* for “coordinating and overseeing” the activities of the other actor...*the DOD Space Architect*.³

The DOD Space Architect, as described by the department, led a multi-service space architecture planning organization with responsibility for establishing an integrated DOD space architecture in such areas as milsatcom, remote sensing, tactical intelligence, and weather. The agency’s architecture was to be capable of meeting U.S. military operational needs, and provide guidance to ensure implementation of space capabilities consistent with the “overall DOD space architecture plan”. He was also to be responsible for ensuring close coordination between “space acquisition and architecture planning and development functions”, as well as maintaining a liaison with those activities assigned to the National Reconnaissance Office.⁴ Although layered, the alignment on assumption could work since it appeared the Space Architect worked for the ADUSD (SS&A) who worked for the DUSD (Space).

After reexamining the job descriptions and wading through wiring diagrams, the above assumption proved wrong. The fact was the military space architect, as designed in 1995, *reported* to the Under Secretary of Defense for Acquisition and Technology

(USD (A&T)) not the DUSD (Space), ... *through* the Air Force Acquisition Executive (AFAE)...but was to maintain *close coordination* with the DUSD (Space) and ADUSD (SS&A).⁵ What existed was layering in two dimensions compounded by the fact The Space Architect sent the DOD architecture *through* the AFAE. Most importantly, the Space Architect had the ultimate responsibility within the DOD for developing integrated space architectures responding to the requirements of the warfighting user community – namely, the CINCs, including USSPACECOM and its sub-components. At this point, the space architecture for the joint warfighter is obscured with layers of oversight and coordination, while an agency charged with space operations stands in line to give its space requirements to a staff agency.

In summing up the DOD's 1995 version of the DOD Space Architect, the purpose of the 8 March 1995 DOD memo was to “finalize the consolidation of responsibilities and functions for space policy, architecture and acquisition management”.⁶ With regard to the resulting relationships for the space management offices, the initiatives appear to have done anything but consolidate “functions and responsibilities” much less focus attention to the needs of the warfighter. In an article for *Joint Forces Quarterly*, Joan Johnson-Freese and Roger Handberg maintain this Space Architect was “deliberately designed to be anything but a central player in space”.⁷ In addition to the overlapping and confusing lines of coordination, Johnson-Freese and Handberg express concern since the Space Architect had no constituency, no real authority, obviously no assigned forces, and is in competition with USCINCSpace – an operational commander with operational planning and execution authority.⁸

Observation

So, why focus on the 1995 design for space management in the DOD? In simple terms, there are enough indicators to suspect "fog and friction" impeding the three primary actors in the DOD management lay-down. The following table (Table 2) lists a number of activities and responsibilities by various actors established as part of the DOD 1995 Management Initiatives and delineates the overlap and layering noted by Johnson-Freese and Handberg:

Table 2. Responsibilities Assigned by DOD for Managing Military Space⁹

	DUSD (SPACE)	ADUSD (SS&A)	ASD (C3I)	OIPT	JROC	JSMB	Space Architect
Development and Integration of Space Architecture	X	X					X
Oversee or Review Acquisition Programs	X	X		X		X	
Interagency Interface	X	X					X
Interagency Coordination							X
Congressional Interface	X						
Congressional Coordination	X						
DOD Policy and Planning Guidance for MILSPACE	X	X					X
DOD Policy for MILSPACE Intelligence Systems			X				
Responsibility for Oversight of Mission and User Equipment	X		X			X	
Assess Future Space Systems Requirements	X					X	X
Review MILSPACE Requirements					X	X	X
Validate MILSPACE Requirements					X	X	
Service Coordination					X	X	X

With respect to the above, the 1995 organization layered and deluded the effectiveness of the Space Architect to participate in long-range planning. However, the DRI disbanded the office of the DUD (Space), but the architect remained. Therefore, as the architect is repositioned, the analysis of the 1995 organization is important to avoid

continued overlap and layering. In the next section, the analysis focuses on the assigned functions of the DOD Space Architect and the overlap with USCINCSpace.

Notes

¹ Department of Defense. Memorandum. Subject: The Space Architect's Charter, 8 March 1995.

² Ibid.

³ Department of Defense. *DOD Space Systems and Architecture Management Initiatives*. <http://www.acq.osd.mil/space/about/DOD-management.html>.

⁴ Press Release. Department of Defense. Subject: Appointment of DOD Space Architect, 14 September 1995. http://www.defenselink.mil/news/Sep1995/b091495_btspacea.html.

⁵ Department of Defense. *DOD Space Systems and Architecture Management Initiatives*.

⁶ Department of Defense. Memorandum. Subject: The Space Architect's Charter, 8 March 1995.

⁷ Johnson-Freese, Joan, and Roger Handberg. "Searching for Policy Coherence: The DOD Space Architect as an Experiment." *Joint Forces Quarterly*, Summer 1997, 95.

⁸ Ibid., 94.

⁹ Department of Defense. *DOD Space Systems and Architecture Management Initiatives*.

Chapter 4

Mirroring...USCINCSpace and the Space Architect

Is USCINCSpace a likely actor or owner for space architecture, at least as a host for the military space architect? Johnson-Freese and Handberg hint at the possibility when they note *possible* competition between the DOD's Space Architect and the USCINCSpace.¹ This would be especially true for stating requirements and designing operational military architectures from which warfighters depend on space assets, and additionally for areas where USCINCSpace is ultimately responsible and accountable. The purpose of this section is to examine and compare these two actors in light of the responsibilities and functions outlined in the 1994-95 DOD Space Management Initiatives. The object, to look for similarities and redundant activities. For USCINCSpace, it is important to look at peer-unified commands that have responsibility for long range strategic assessments, unified and component master plans, and architectures. Returning for a more in depth look, it is important to view the DOD Space Architect in terms of the original charter, and highlight the responsibilities and activities which the charter identifies as operations and support of the military and the warfighters.

USCINCSpace

Mission and Responsibilities

USSPACECOM is a unified command with assigned forces conducting routine Space operations. The mission of USSPACECOM is to conduct joint space operations in accordance with Unified Command Plan assigned missions: Space Forces Support; Space Force Enhancement; Space Force Application, and Space Force Control. In addition, USSPACECOM is responsible for planning and executing ballistic missile defense operations of North America. USSPACECOM also advocates the space and missile warning requirements of the other CINCs. USSPACECOM's area of operation is the operational medium of space.²

In addition to the above, certain activities for assessing future requirements, developing and maintaining master plans, conducting long-range planning (possibly including architectures), reviewing service acquisitions are performed as responsibilities of a CINC. In the case of USCINCSpace, an example of this is found in USSPACECOM's *Vision for 2020* as it describes the command's Space Planning and Requirements System (SPRS).³ (See Figure 2) Coincidentally, these functions and responsibilities in the SPRS are very similar to those DOD designated be performed by the DUSD (Space) and the DOD Space Architect.⁴

Interestingly, the long-range planning activities are in place at USSPACECOM to exercise the responsibility to produce the military space architecture from a joint warfighter's perspective, and as a *joint* unified command disregard service bias. Accordingly, USSPACECOM describes the SPRS as an "end-to-end" planning process

starting with the *Joint Vision 2010* and the Space Master Plan; passing through operations, requirements identification, and acquisition processes; ending with fielded capabilities for the users with an input loop back to USSPACECOM. Again note, these are the same roles and functions shared by DUSD (Space) and the DOD Space Architect. But in the SPRS, the central actor (USCINCSpace) has authority, as a CINC, to make things happen, and has the responsibility to determine national and joint requirements, integrate the component's requirements development process, and oversee acquisitions from a joint perspective. Along with the SPRS, USCINCSpace and the other CINCs are direct participants at the JROC, as are USD (A&T) and the previous DUSD (Space). This means, the JROC process insures all the CINCs review the space requirements and architecture as presented to USCINCSpace and the services to ensure the requirements are met. With these things in mind, General Estes has expressed his views about the command as being integral to space futures.

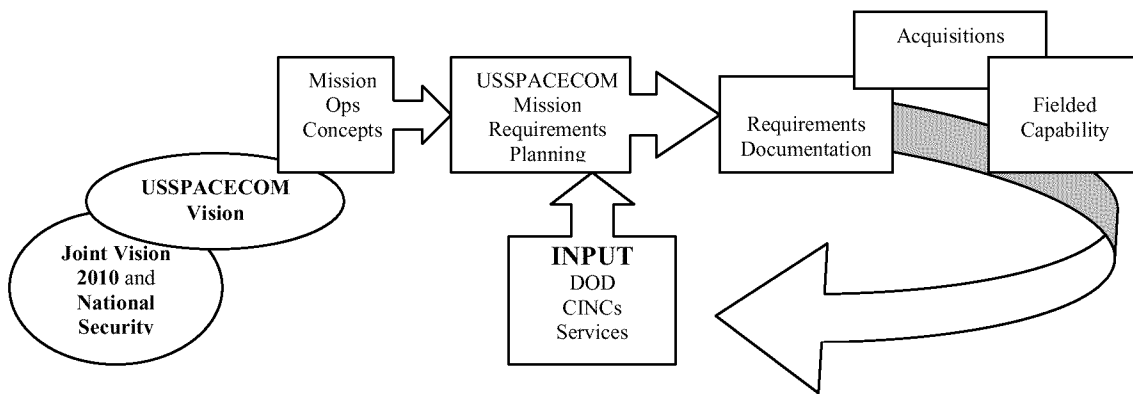


Figure 2. USSPACECOM Space Planning and Requirements System

General Estes, as the CINC, sees USSPACECOM as the “bedrock to which the bridgeheads to other organizations, agencies, industries, and nations are anchored”.⁵ On another occasion, General Estes commented:

*“ The first step in any acquisition is to know what is needed. This implies the warfighter has communicated warfighting needs to the acquisition community that, in turn, carries the message to industry. The warfighters must have a vision of where they are headed and what they need to get there. ”*⁶

This having been said, it appears General Este’s views the command as capable of expanding responsibility in space management, which could include the architecture development as well. Taking a look at other functional unified commands, the CINCs perform the strategic assessment, long range planning, acquisition review, master plan development, and architectures without their efforts being duplicated.

Precedent Peer Activities

USTRANSCOM and USCINSOC are functional CINCs who take great responsibility for the long-range strategic planning (...or architectures, if you will) both from an internal and external customer view. USTRANSCOM is the steward for strategic mobility, the overseer of the component command's master plans, ensuring the military mobility "architecture" marries-up with the national transportation system and the needs of the warfighting CINCs.⁷ On the other hand, USCINCSOC conducts strategic assessments across the component commands to ensure SOF can meet the requirements of both the NCA and the regional CINCs. Additionally, USCINCSOC provides a SOF Master Plan and long range architectures for worldwide SOF operations.⁸

Both CINCs observe the due protocol to the OSD offices of responsibility, but clearly hold on to what should rightfully be done on their watch. It seems within reason,

USCINCSpace could do the same with regard to any organization replacing DUSD (Space) and the DOD Space Architect.

A CLOSER LOOK AT THE DOD SPACE ARCHITECT

After the above review of USCINCSpace, his duties and responsibilities, it is important to take a closer look at the DOD Space Architect. Earlier in this document, Table 1 lists the duties and responsibilities assigned by the DOD Space Management Initiatives. Specifically, the DOD Space Architect was to head an organization responsible for developing an "integrated defense space architecture", to coordinate that architecture with the intelligence community, and to integrate validated requirements into the existing and planned space system architectures.⁹ One cannot help but notice that the descriptive language of both USCINCSpace (duties as assigned to CINC's by the Unified Command Plan; and those duties stated above) and the Space Architect begin to sound similar...or...redundant.

The DOD Space Architect's Charter

The DOD Space Architect's Charter is spelled out in a memorandum providing guidance for the establishment of the DOD Space Architect organization proposed to the Joint Chiefs of Staff on March 8, 1995 and discussed in the March 8, 1995 Deputy Secretary of Defense memorandum to the Secretary of the Air Force. It further establishes the purpose, authority, and staffing for the DOD Space Architect. The following table (Table 3) defines the elements of the charter establishing the DOD Space Architect and accompanying office. Differing from an earlier section, where the analysis of the relationships of the DOD Space Architect depicted unclear layering and large

amounts of coordination, this table shows those areas which overlap with activities either done, or could be done by USCINCSpace and his staff.

In analyzing the information in Table 3, the Reporting Chain is confusing as pointed out in an earlier section, but the important elements are the overlap in responsibilities and capabilities with USCINCSpace. Although, noticeable in the section on Purpose (Table 3, Section 1), the most obvious overlap is in Responsibilities and Functions (Table 3, Section 3) and Staffing (Section 6). In Section 3.a, the areas the architect is chartered to work are the same mission areas, as described earlier, for which USCINCSpace is accountable and responsible for under the Unified Command Plan. Likewise, the activities described in Section 3.b associated with integrating systems and providing user interface are typically activities, which are done on a CINC's staff. Lastly, as defined in Section 6, the architect's staff duplicates a staff (in terms of joint membership, etc.) much like the one already in existence at USSPACECOM.

Table 3. Elements of the DOD Space Architect Charter¹⁰

1. Purpose	<ul style="list-style-type: none"> a. Consolidate DOD responsibilities for space missions and system architecture development into single organization b. Eliminate vertical stovepiping c. Achieve efficiencies in acquisition and future operations through program integration, and improve space support to military operations d. Develop fully integrated space architectures for supporting national security requirements, and propose space architectures and capabilities with the Intelligence Community through the Joint Space Management Board (JSMB).
2. Reporting Chain	<ul style="list-style-type: none"> a. Report through the Air Force Acquisition Executive to the Defense Acquisition Executive (DAE). b. DUSD (Space), on behalf of the DAE, will provide OSD policy guidance. c. Submit proposed architectures through DUSD (Space) to the DAE or the JSMB, as appropriate.
3. Responsibilities and Functions	<ul style="list-style-type: none"> a. Develop space architectures across the range of DoD space mission areas to include space support, force enhancement, space control, and force application. Include launch and satellite control and the space-related areas of tactical intelligence; targeting; surveillance and warning (e.g., ballistic missile warning); command, control and communications; navigation; environmental monitoring; and space control. b. Integrate validated requirements into existing and planned space system architectures - to include the space, ground, and communication link segments, as well as user interfaces - within overarching architectures responsive to the needs of the users. c. Assist DUSD (Space) in the development and maintenance of an overall DoD space systems master plan which depicts how assured mission support is provided by space systems to the National Command Authority, Combatant Commanders, and operational forces. Specifically, the master plan will depict how current space system architectures evolve to provide required capabilities. At a minimum, the plan will include a description of existing space systems and architectures, planned/proposed space architectures, modifications to existing space systems, transitions from existing to planned architectures, space-related technology programs,

	technology infusion opportunities, and interoperability with U.S. Allies for coalition operations. This plan will be a living document with the purpose of defining a clear path to obtaining capabilities derived from space systems to satisfy validated requirements.
4. Working Relationships	<p>a. Support the ASD (C3I) and other organizations (Ballistic Missile Defense Organization, Defense Information Systems Agency, Defense Intelligence Agency, Defense Mapping Agency, National Imagery Agency, and National Security Agency) in the development of architectures and master plans for which space systems will comprise a critical component.</p> <p>b. Coordinate space control architecture issues with the Director, Information Warfare, OASD (C3I).</p> <p>c. Coordinate with the agencies, the JCS, and the Services responsible for developing requirements to fully understand each requirement's basis; coordinate CINCs' requirements through the JCS Staff. In addition, the Architect shall coordinate with Agencies and Services responsible for planning, acquiring, and/or operating space systems, to include the NRO, NASA, and USSPACECOM.</p>
5. Authority	<p>a. Derives authority from the DAE for significant influence over acquisition decisions, but will have no direct acquisition authority per se.</p> <p>b. For the acquisition process, evaluate and integrate into existing or planned space architectures all proposals, which may involve a space-related solution.</p> <p>c. The Architect will be key member of integrated product teams in the acquisition review process for space and related C4I systems. To objectively perform his/her duties, the Architect must be able to conduct independent analyses of proposed space architectures. Modeling and simulation used to support such analyses must evaluate the ability of proposed space architectures to satisfy requirements under operational conditions in peacetime, crisis, or war.</p> <p>d. Authority to task (through the respective Service or Agency) DoD component developmental and acquisition centers and their analytical capability for required support.</p> <p>e. Coordinate day-to-day activity directly with the performing organization.</p>
6. Staffing	<p>a. Organization will be a non-headquarters, jointly manned activity.</p> <p>b. The Architect will be a military officer in the grade of O-8 or civilian equivalent.</p> <p>c. Each Service will assign personnel to the organization in order to maintain a requisite high degree of joint Service representation. Each Service shall review their individual organizations for functions, which replicate those of the DoD Space Architect and may use billets from these functions to fill personnel requirements.</p> <p>d. The Air Force, as the lead Service, will assign additional support and administrative personnel to the organization, and program and budget for the operation of the office.</p>

Along the same line, a briefing prepared by the Space Architect's office included responsibilities of establishing and maintaining a Space Master Plan; representing the space architecture at DOD decision forums; and promulgating architecture interoperability and compatibility standards. Additionally, the briefing describes a staff of 40 military and civilian personnel augmented by contractors to develop the space architecture, acquisition strategy, the space master plan, and a budget program.¹¹ In a previous analysis, Lt Col John Insprucker describes the Space Architect office and staff as a "line organization"¹². Again, for this analysis, it is important to understand a *bona fide* line organization, USSPACECOM, already exists performing same and similar tasks as the office of the Space Architect, and with the responsibility authority of a CINC. The research for this essay shows no occasion where General Estes has made comment about

the propriety of the DOD Space Architect, but it is apparent his command could host the function if it were assigned.

Notes

¹ Johnson-Freese, Joan, and Roger Handberg. "Searching for Policy Coherence: The DOD Space Architect as an Experiment." *The Joint Forces Quarterly*, Summer 1997, 94.

² US Space Command. USSPACECOM Misison Statement.
<http://www.uspacecom.af.mil>

³ US Space Command. *Vision for 2020*. February 1997.

⁴ See Table 2.

⁵ Estes, Gen Howell M.,III. Posture Statement for Senate Armed Services Committee Hearings, 11-12 March 1997.

⁶ Estes, Gen Howell M.,III. "Space--Expanding the Acquisition Envelope." Speech. Air Force Association 1997 Acquisition Update Symposium, Colorado Springs, CO, 22 May 1997.

⁷ US Transportation Comand. USTRANSCOM Strategic Planning Team. Mission Statement. <http://ustcweb.safb.af.mil/J5/index.htm>. Telecon to validate strategic planning functions.

⁸ US Special Operations Command Center of Excellence for Force Structure, Resources, Requirements, and Strategic Assessments.
<http://apphost1.socom.smil.mil/J57/J7index.htm>, 20 January 1998. Telecon to validate strategic planning functions.

⁹ Department of Defense. *DOD Space Systems and Architecture Management Initiatives*. Available from <http://www.acq.osd.mil/space/about/DOD-management.html>

¹⁰ Department of Defense. Memorandum. Subject: The Space Architect's Charter, 8 March 1995.

¹¹ Staff Information Briefing. Department of Defense Space Architect. Subject: The DOD Space Architect, undated.

¹² Insprucker, Lt Col John L. "The New DOD Space Management Process: A Critical Analysis." Maxwell AFB, Ala.: Air War College, 1996, 23.

Chapter 5

Hot Wash...Lessons Learned and Recommendation

Conclusions

To present a recommendation supporting the thesis that USCINCSpace should take on a greater responsibility in the management of space (including architecture), consider some conclusions...or lessons learned. The conclusions focus on two areas -- bureaucratic obscuration of DOD space management, and the creation of DOD staff agencies in the face of standing CINC to perform similar and redundant long range planning activities.

Lesson Learned #1. Bureaucratic Obscuration.

The DUSD (Space) organization and the DOD Space Architect presented a situation, which obscured the management of military space, particularly in the development of the space architecture. The layers of oversight, continuing lines of coordination, and confused chain of command support this conclusion.¹ Johnson-Freese and Handberg describe the obscurity created by the coordination grid as a management problem areas compromising organizational efficiencies.² The lesson for the next round of DOD space management - *Avoid the dotted lines.*

Lesson Learned #2. Let the CINC do his job.

The comparison of DUSD (Space), the DOD Space Architect, and USCINCSpace depicted organizations performing same and similar tasks (See Comparison of DOD Space Management Responsibilities and Functions, Table X). The DOD Space Architect, as created in 1995, appeared to focus the efforts of space management into a military planning and coordination agency comprised of service representatives and contractors. However, the examination of USCINCSpace and USSPACECOM show a standing joint unified command already capable of doing the job. Furthermore, USSPACECOM's formalized the claim to the turf with the SPRS.

Table 4. Comparison of DOD Space Management Responsibilities and Functions³

Functions or Responsibility	DOD Space Management Activities	USCINCSpace
Develop and Integrate Requirements	X	X
Develop and Integrate Space Architectures	X	X
Oversee and Review Acquisitions	X	X
Responsible for the Oversight Of Mission and User Equipment	X	X
Assess Future Space Systems Requirements	X	X
Review MILSPACE Requirements	X	X
Validate MILSPACE Requirements	X	X
Service Coordination	X	X

Recommendation

Give the greater overall responsibility for military space management and architecture development to USCINCSpace. As pointed out, USSPACECOM has a SPRS in place, which performs the functions outlined in the DOD Management Initiatives with the exception of formally designation to develop space architecture. With little additive expense, architecture development could be included as part of the SPRS cycle as shown in Figure 2.

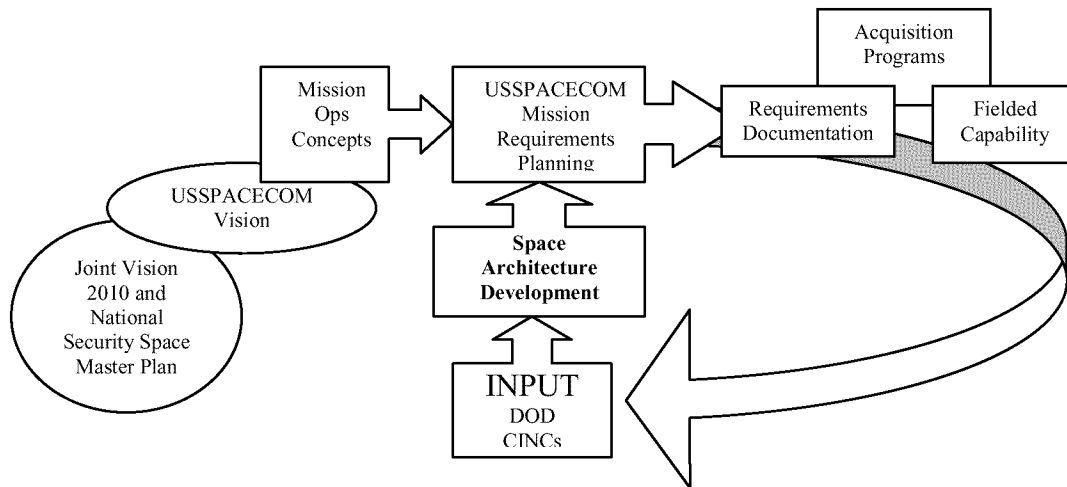


FIGURE 3. Proposed USPACECOM SRPS with Architecture Development Activity

This arrangement would put space management and architecture development in the hands of a standing agency with authority over the organizational pieces left to the coordination grid created in the earlier by DUSD (Space) and the Space Architect.

Additional elements of the recommendation may include the following for USCINCSpace:

- Publish a USSPACECOM Posture Statement advertising the command's responsibility to conduct joint space operations; to assess the space future national requirements, as well as those of the joint warfighter; and to design the space architectures to meet both.
- Direct the responsibility of Space Architect to a standing director at USSPACECOM, or add a Special Assistant, charged with strategic requirements, space master plan, and assessments including future space architectures.
- Establish liaison to OSD/ASD and the NRO.

- Maintain a USSPACECOM Washington Office to conduct the daily interface with OSD/ASD, the JCS, the services, Congress, and the NRO. (Option: Direct the Space Architect to head the Washington Office).

This recommendation provides the means for USSPACECOM to take a greater role in strategic long-range planning for space. From Gen Estes' statements about the command, the deduction is USCINCSpace would favor a reduction in overlap and redundancy. With the SPRS as depicted in *Vision for 2020*, it is difficult to say the command is not capable and ready for a greater role to include hosting the Space Architect as an agent for USCINCSpace.

However, as evidenced while gathering information for this paper, there is a reticence from those who do not understand the role and power of a CINC as spelled out in the UCP. Service bias and limited capability to represent the interest of the NRO were among voiced concerns. It's likely, those who offer such concerns would resist divesting the Space Architect and his organization from the DOD staff and crosswalking the functions to USCINCSpace.

In light of USCINTRANS and USCINCSOC, who (without question...and service bias) perform extensive strategic planning functions, develop master plans and architectures, and oversee their component acquisition processes, it is hard to see why USCINCSpace would be shadowed by a second general officer and military staff agency. Simply, CINCs take orders from the SECDEF. If it is a case of needing a Space Architect because USCINCSpace cannot produce, then there is a larger problem than overlap and redundancy.

This recommendation, or similar, would utilize the authority and office of a standing CINC with a planning system (SPRS) in place to receive the Space Architect function. To do otherwise, leaves long range planning for space operations and architectures in the hands of a staff function instead of a CINC with authority and process ownership to effect meaningful oversight.

Notes

¹ Insprucker, Lt Col John L. "The New DOD Space Management Process: A Critical Analysis." Maxwell AFB, Ala.: Air War College, 1996, 19-23. Also, see Tables 1 and 2.

² Johnson-Freese and Handberg, 94. The authors reference this management principle to Robert Townsend, former AVIS CEO.

³ The sources for this table were derived from the earlier references including the DOD Management Initiatives, the DOD Space Architect's Charter, and USSPACECOM's Mission Statement and *VISION 2020*.

Bibliography

- Department of Defense. *DOD Space Systems and Architecture Management Initiatives*. Available from <http://www.acq.osd.mil/space/about/DOD-management.html>.
- Department of Defense. Memorandum. Subject: The Space Architect's Charter, 8 March 1995.
- Estes, Gen Howell M.,III. Interview with *Aviation Week and Space Technology*, 6 August 1997.
- Estes, Gen Howell M.,III. Posture Statement for Senate Armed Services Committee Hearings, 11-12 March 1997.
- Estes, Gen Howell M.,III. "Space--Expanding the Acquisition Envelope." Speech. Air Force Association 1997 Acquisition Update Symposium, Colorado Springs, CO, 22 May 1997.
- Executive Overview. Deputy Under Secretary of Defense for Space. Subject: DOD Space Management Initiatives, 1997. Available from <http://www.fas.org/spp/military/program/sp97/restruct.html>.
- Homepage. US Space Command. USSPACECOM Mission Statement. Available from <http://www.usspacecom.af.mil>
- Homepage. US Special Operations Command Center of Excellence for Force Structure, Resources, Requirements, and Strategic Assessments. <http://apphost1.socom.smil.mil/J57/J7index.htm>, 20 January 1998.
- Insprucker, Lt Col John L. "The New DOD Space Management Process: A Critical Analysis." Maxwell AFB, Ala.: Air War College, 1996.
- Inside the Air Force*, 23 January 1998, 9.
- Johnson-Freese, Joan, and Roger Handberg. "Searching for Policy Coherence: The DOD Space Architect as an Experiment." *Joint Forces Quarterly*, Summer 1997, 91-96.
- Morris, Lt Col Mark A. "Who Will Command the High Ground? The Case for a Separate Area of Responsibility for Space." Maxwell AFB, Ala: Air War College, 1998.
- Press Release. Department of Defense. Subject: Appointment of DOD Space Architect, 14 September 1995. Available from http://www.defenselink.mil/news/Sep1995/b091495_btspacea.html
- Sietzen, Frank, Jr. "The Re-Inventing of DOD Space." *Space Times*, September-October 1997, 15-18.
- Staff Information Briefing. Department of Defense Space Architect. Subject: The DOD Space Architect, undated.
- Staff Information Briefing. Department of Defense Space Architect. Subject: The DOD Space Architect, February 1998.
- "US Defense Studies Studies Space Policy Structure." *Space News*, 26 January-1` February 1998, 2.
- US Space Command. *Vision for 2020*. February 1997.

DISTRIBUTION A:

Approved for public release; distribution is unlimited.

Air War College
Maxwell AFB, Al 36112