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Research Report

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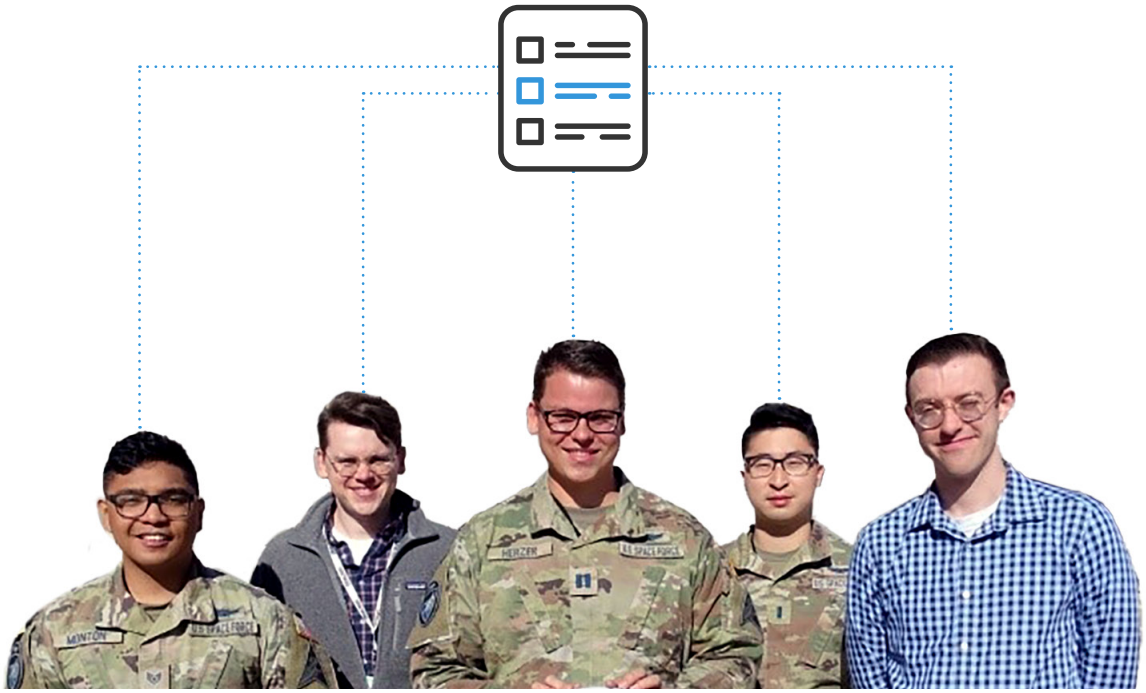
U.S. Space Force Personnel Role Distinctions

Differentiating Between Officer, Enlisted, and Civilian



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About This Report

This report documents work to examine how the U.S. Space Force (USSF) currently differentiates between the personnel roles and duties performed by its officers, enlisted personnel, and civilians. With a focus on the operational community, we identify issues of concern with the current policy and suggest guidelines for defining the roles of each personnel type going forward. The primary audience for this work is decisionmakers in USSF headquarters, particularly in the Office of the Chief of Space Operations for Human Capital (S1), who are working to shape the USSF guardian identity and culture by developing related guidance for USSF personnel. Thus, we assume that the audience of this report is familiar with the USSF and U.S. military personnel and manpower concepts.

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Summary

Issue

When the U.S. Space Force (USSF) was stood up, USSF personnel were identified primarily because of their broad responsibility for space missions without predetermined consideration for how types of personnel would be used within this new collective whole. The issue this report focuses on is how the service is differentiating between the roles of military and civilian personnel and between those of officers and enlisted personnel. In the U.S. Department of Defense (DoD) military services, personnel management for officers and enlisted personnel has traditionally proceeded along separate tracks; however, the demarcation between officers and enlisted guardians in the USSF is less distinct. The roles of civilians and contractors in DoD have evolved, and they currently play a large role in the USSF. The objective of this research was to characterize how the USSF distinguishes between the roles of military and civilian personnel, as well as between officers and enlisted personnel, and to outline considerations for potential future differentiation.

Approach

We first examined how the USSF was using its personnel and whether the current state of the workforce presented challenges for accomplishing USSF missions in the operational community. To conduct this research, we integrated findings from a review of relevant DoD and Department of the Air Force (DAF) policy and guidance, an assessment of unit manning data from the Manpower Programming and Execution System, interviews with stakeholders across the USSF, and focus groups with USSF Space Delta 8 and Space Delta 7 personnel. We then considered options for addressing those challenges by organizing our findings into the as-is picture and comparing it with potential ways to differentiate personnel roles.

Key Findings

- USSF leadership and individual guardians need better clarity of and rationale behind roles assigned to officers, enlisted personnel, and civilians.
- Some operational units, such as the 53rd Space Operations Squadron and the intelligence, surveillance, and reconnaissance squadrons in Space Delta 7, have a clear, traditional delineation between officers and enlisted personnel.
- Some operational units, such as the 10th Space Operations Squadron, the 53rd Space Operations Squadron, and the intelligence, surveillance, and reconnaissance squadrons in Space Delta 7, also have a relatively clear use of civilians.

- Manning decisions based on differentiated roles will require balancing many, sometimes competing, considerations: budget; caps on military personnel; the need for 24-hours-a-day, 365-days-a-year mission assurance in some USSF missions; sustainment of the military personnel pool; the eight-crew requirement for the Space Force Generation model; unit structure; personnel development pathways; and restrictions on civilian roles.

Recommendations

- Assessing personnel roles using a defined rubric of roles and responsibilities with associated guidelines could help the USSF more clearly delineate how it will use officer, enlisted, and civilian personnel while maintaining the desired workforce flexibility. Our suggested rubric (see Figure S.1) provides a menu of options to enhance flexibility for achieving a balance among competing considerations.
- The USSF should consider comparing different personnel mixes either by (1) using a demonstration program with selected units or (2) leveraging the different units the USSF already has with different personnel role distinctions as natural experiments for comparison.
- The USSF should consider what adjustments to officer, enlisted, and civilian personnel roles would ease the transition to a future likely to have increased automation and fewer required personnel.

Figure S.1. Rubric with a Suggested Menu of Future Options

Areas of Responsibility	Officers		Enlisted		Nonmilitary	
	Junior	Senior	Junior	Senior	Civilians	Contractors
Organizational leadership	▨	●	○	●	●	○
Operational command	●	●	○	●	○	○
Strategic planning	▨	●	○	●	▨	○
Wartime oversight	●	●	○	●	●	○
Execute ops tasks (NUDET, COMSEC)	●	○	●	●	●	○
Execute ops tasks (other)	◎	○	●	●	●	▨
Deploy	●	●	●	●	●	○
Tactical expertise	●	●	●	●	▨	○
Equipment custody	●	●	●	●	▨	○
Technical systems expertise	◎	◎	●	●	●	●
Administration/human resources	○	○	○	●	●	○
Facilities support	○	○	○	○	●	▨
System support	◎	○	○	●	●	●

● Currently fills positions ○ Does not currently fill positions ▨ Does not currently but could fill positions
◎ Currently fills positions but may not be best practice

SOURCE: Analysis of interview and focus group data, manpower documents, and USSF and DAF guidance (Air Force Instruction 1-1, 2023; Air Force Instruction 36-3701, 2010; Space Doctrine Publication 1-0, 2022; Space Operations Command, 2023; DAF, 2022; USSF, 2020; USSF, 2021).
NOTE: COMSEC = communications security; NUDET = nuclear detonation; ops = operations.

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U.S. Space Force Personnel Role Distinctions: Differentiating Between Officer, Enlisted, and Civilian

When the U.S. Space Force (USSF) was established in December 2019, it inherited a unique composition of personnel predominantly from U.S. Air Force (USAF) units responsible for space missions—although some personnel were transferred from other military services. The USSF personnel, who became known as *guardians*, were identified primarily because of their broad responsibility for space missions without predetermined consideration for how types of personnel would be used within this new collective whole. The issue of particular interest, now several years into the USSF's journey, is how the service is differentiating between the roles of military and civilian personnel and between those of officers and enlisted personnel.

In the U.S. Department of Defense (DoD) military services, personnel management for officers and enlisted personnel has traditionally proceeded along separate tracks—separate initial military and technical training; separate authorities in law; and differences in service commitments, pay, and advancement. However, the demarcation between officers and enlisted guardians in the USSF may be less distinct. In some cases, officers and enlisted guardians might perform the same or very similar jobs within a unit. This was the case even before there was a Space Force, and the lack of demarcation contrasts with the clearer roles and command structures in other DoD services.[1]

Civilians have played a significant role in the U.S. military since its formation during the Revolutionary War. Since then, roles filled by civilians have evolved from a way to supplement gaps left by uniformed personnel to taking on more and more-technical roles and, eventually, becoming the preferred type of personnel for non-military-essential positions. In addition to the lower costs associated with civilian personnel, contractors provided enhanced capabilities during the global war on terrorism, and this contribution resulted in the increased technical, scientific, and acquisition roles that civilians and contractors fill today (Lofgren, 2016).

The USSF is still defining its identity and culture and will ultimately need to decide how best to use its officer, enlisted, and civilian forces to meet its unique mission requirements. Defining roles among personnel types is not a new problem for DoD, and DoD directives and instructions (e.g., DoD Directive 1100.4, 2005; DoD Instruction 1100.22, 2010) specify what must be done by military personnel. The Federal Acquisition Regulation, Subpart 7.5, includes an extensive list of inherently governmental functions that must not be contracted out—for example, "[t]he command of military forces, especially the leadership of military personnel who are members of the combat, combat support, or combat service support role" (U.S. Code, Title 48, Section 7.503[c][3]) and "[t]he

[1] This overlap was documented in 2018 by the Space Cadre Task Force, before the USSF was stood up.

direction and control of intelligence and counter-intelligence operations" (U.S. Code, Title 48, Section 7.503[c][8]). There is also federal policy that outlines how government agencies should determine what is inherently governmental and whether government personnel should perform a commercial activity (U.S. Office of Management and Budget, 2003). Although the federal guidance exists, the implementation and justifications given by the different DoD organizations have been inconsistent (Greenwood et al., 2019). The research discussed in this report examines the benefits and risks of taking a more traditional approach to defining the roles and responsibilities of guardians versus trying something new.

The objective of this research was to characterize how the USSF distinguishes between the roles of military and civilian personnel, as well as between officers and enlisted.[2] To meet this aim, we first examined how the USSF was currently using its personnel and whether the current state of the workforce presented challenges for accomplishing the USSF's mission. We then considered options for addressing those challenges. To conduct this research, we integrated findings from a review of relevant DoD and Department of the Air Force (DAF) policy and guidance; assessment of unit manning data from the Manpower Programming and Execution System; interviews with stakeholders across the USSF; and, for an in-depth look, focus groups with USSF Space Delta 8 and Space Delta 7 personnel located at Schriever Space Force Base and Peterson Space Force Base, respectively.[3] A detailed discussion of our approach is in Appendix A, and additional insights from the unit focus groups and interviews can be found in Appendix B.

Current State of Personnel Differentiation

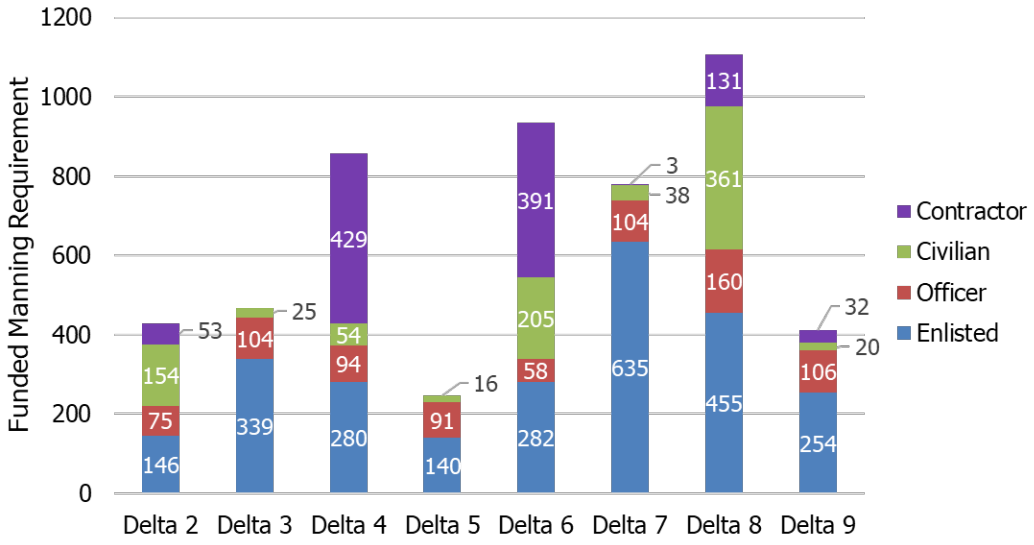
Compared with the other DoD services, the USSF has a much higher percentage of officers among its active-duty military personnel (Cancian, 2021). This high officer percentage is partly a legacy of how the space operations community in the USAF evolved from the predominantly-officer missileer community. When the USSF was established, that predominantly-officer space operations community in the USAF then transitioned to USSF, according to our interviews with career field managers and the unit focus groups. In addition, USSF missions often benefit from the technical expertise associated with completion of a science, engineering, or related university degree, which is a requirement for becoming a commissioned officer. Furthermore, the USSF relies on the USAF to perform many mission-support functions, such as base security, conducted by units with few officers and large numbers of enlisted personnel.

[2] This research did not include the reserve component of the USSF. When the USSF was created, there was no provision for a Space Force reserve; reserve space professionals are currently in the USAF Reserve. Language in the National Defense Authorization Act for Fiscal Year 2024 (Pub. L. 118-31, 2023; Title XVIII—the Space Force Personnel Management Act) will allow the USSF to absorb space reservists into a new construct that makes no distinctions between part-time and full-time personnel.

[3] Operational units in the USSF are organized around mission areas into units called *deltas*. These contain several squadrons that execute and support each mission. Delta 2 conducts the space domain awareness mission; Delta 3 conducts space electronic warfare; Delta 4 conducts missile warning; Delta 5 runs the Combined Space Operations Center; Delta 6 conducts cyberspace operations; Delta 7 conducts intelligence, surveillance, and reconnaissance (ISR); Delta 8 conducts satellite communications and navigational warfare; and Delta 9 oversees orbital warfare.

The ratio of officers to enlisted personnel and the use of contractors and civilians vary by delta (see Figure 1) and squadron (see Figure 2). Figure 1 shows the requirements for eight of the operational deltas in the USSF. The deltas with the lowest officer-to-enlisted ratios (i.e., below 3:10) are those that do not conduct the typical space operations mission on a console: Delta 3 deploys for missions, Delta 6 conducts cyber operations, and Delta 7 conducts ISR operations. There is a higher use of contractors in Delta 4 and Delta 6. For the former, this is driven by the use of contractors at the geographically separated units that operate the ground-based radars. For the latter, this could be driven by the need to bring in highly technical personnel to stand up the new cyber operations missions, which also explains the relatively high number of civilians in Delta 6. Relatively few to no contractors and few civilians are used in Deltas 3, 5, 7, and 9. It is possible that this reflects the sensitive nature of their more-military missions: space electronic warfare, command and control, intelligence, and orbital warfare, respectively.

Figure 1. Funded Manning Requirements, by Delta

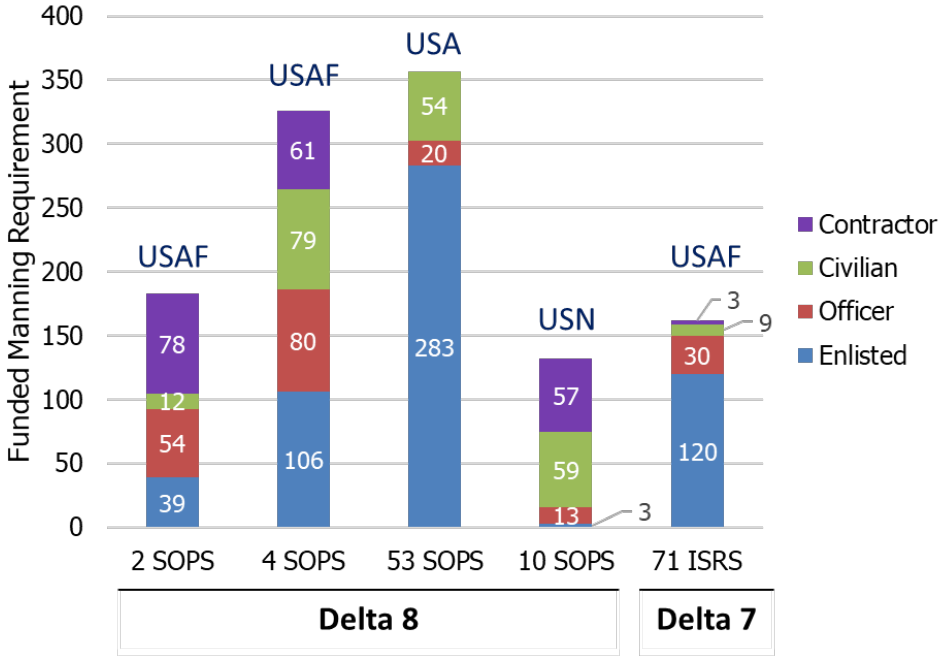


SOURCE: Features data extracted from DAF's Manpower Programming and Execution System Unit Manning database as of June 2023.
NOTE: A funded manning requirement signifies the validated and allocated manpower needed to accomplish the unit's mission.

Figure 2 shows requirements for some of the squadrons with whom we conducted focus groups. Some squadrons, such as the 2nd Space Operations Squadron (2 SOPS) and 4 SOPS, which both transferred into the USSF from the USAF, have a relatively high, roughly 2:3, ratio of officers to enlisted. In contrast, the 53 SOPS, which transferred from the U.S. Army, has a much lower and thus more traditional officer-to-enlisted ratio of about 7:100, and 10 SOPS, formerly part of the U.S. Navy, is predominantly staffed by civilians and contractors. The 4 SOPS, 53 SOPS, and 10 SOPS all conduct similar satellite communications missions—yet the composition of personnel in these units differs considerably and reflects the variety of pre-USSF views on the ideal personnel mix to accomplish these missions. The 71st ISR Squadron (ISRS) transferred from the USAF. In contrast

to the space operations units from the USAF, it adheres to the more traditional command structure from the USAF intelligence community with an officer-to-enlisted ratio of 1:4.

Figure 2. Funded Manning Requirements, by Unit



SOURCE: Features data extracted from DAF's Manpower Programming and Execution System Unit Manning database as of June 2023.
NOTE: USAF indicates units that transferred from the USAF; USA, from the U.S. Army; and USN, from the U.S. Navy. A funded manning requirement signifies the validated and allocated manpower needed to accomplish the unit's mission.

The Degree of Overlap Between Officer and Enlisted Roles Varies by Unit

According to career field managers and some focus groups, in operational units, large numbers of company grade officers (i.e., O-1 to O-3) and enlisted guardians sit side by side doing the same job but with significantly different pay and career trajectories. These differences create confusion and negatively affect morale, according to focus group members. The operational units that experience this issue have expressed a desire to decrease the proportion of officers in the unit; however, career field managers and some in S1—the staff of the USSF's chief human capital officer—stress the importance of keeping officer levels the same to ensure a wide enough selection pool for officer promotions. This identified tension is an area where career field managers are looking for guidance from USSF senior leadership to clarify priorities.

Relatedly, there is a widely held perception that officers need time performing operations on a console to become technical experts so that they can later lead units operating those same systems. However, this may be a misconception because interservice transfers from the Army and Navy, 53 SOPS and 10 SOPS, respectively, do not have officers regularly sit on a console as part of their development.

Our review of policy documents confirms the significant overlap between space systems officers and enlisted personnel (i.e., 13S and 5S career fields), shown in Table 1. Both officers and enlisted personnel perform duties within the same USSF disciplines, although officers are described as "directing" and "overseeing" space operations, while enlisted duties focus more on directly performing space operations tasks. Officers in the 13S career field and 5S enlisted personnel attend the same core training courses. While the lists of competencies associated with 13S and 5S career fields differ, they also contain substantial overlap. The enlisted personnel competencies of command and control, professional development, and operational planning are closely related to the officer competencies of crew operations, training, and planning.

Table 1. Comparison of Space System Operator and Space System Officer Career Fields

	Space Systems Operator, 5S (Enlisted)	**Space Systems Officer, 13S (Officer)**
Duties	"Do everything," perform multiple tasks	"Direct the entire system," oversee, assess, plan
Accession	Voluntary enlistment and basic training	USAF Academy, USAF Reserve Officer Training Corps, Officer Training School
Disciplines (shared)	Orbital warfare Space electronic warfare Space battle management Space access and sustainment	
Training courses	Space 100, 200, and 300 courses; USAF Weapons School	
Competencies	Competencies for 5S and 13S differ, but significance not always clear (examples below)	
	Command and control; professional development; operational planning; readiness; communication; technical capability investment; satellite operations	Crew operations; digital fluency; training; planning; test and evaluation; acquisition; fiscal resources; space access and sustainment

SOURCE: Analysis of DoD and DAF policy and recruiting materials (Air Force Instruction 36-3701, 2010; Space Doctrine Publication 1-0, 2022; DAF, 2022; USSF, undated-a; USSF, undated-b; USSF, 2020).

Looking across the units that participated in focus groups, we found that the degree of overlap between officer and enlisted roles varies greatly by squadron, as illustrated in Figure 3. On the left side of the figure, the officer-to-enlisted ratio is high, and officer and enlisted specialties share missions, courses, and competencies. The two personnel types were described in focus groups as "interchangeable." Two of the units with whom we conducted focus groups, 4 SOPS and the 8th Combat Training Squadron (8 CTS), fall on that end of the spectrum. In these units, confusion about roles, tension and poor morale and concerns about retention were the greatest. Some personnel we spoke with from those units suggested some advantages of interchangeable roles, such as flexibility to fill roles with different types of personnel when there are shortages and, to a small degree, the potential to increase communication between officers and enlisted personnel, thereby breaking down barriers.

Figure 3. Spectrum of Officer-Enlisted Overlap in Focus Group Units

SOURCE: Analysis of focus group discussions.
NOTE: E = enlisted; O = officer.

At the right end of the spectrum are units that have a low officer-to-enlisted ratio and adhere to a more traditional division of responsibilities between officers, who lead, and enlisted personnel, who execute mission tasks. Some of these units also contain elements that conduct deployed missions. The 53 SOPS and the ISRSs from Delta 7 fall on this side of the spectrum. In these units, there is notably no confusion about who does what and why, resulting in a better sense of unit cohesion and purpose. In the absence of codified and strictly enforced guidance on how the USSF should differentiate roles between officers and enlisted personnel, these units provide examples of one approach that has comparatively better reception at the unit level.

In the middle is 2 SOPS, whose leadership has recognized the tension at the extreme ends of the spectrum and made recent efforts to section off specific crew positions that will be officer-only going forward. However, other roles still have officer and enlisted overlap.

The differences between these units are a legacy of where each unit originated and more-recent leadership initiatives. They provide an opportunity to assess what works from each approach and thoughtfully move forward with what best achieves USSF objectives. The USSF conducts a multitude of diverse missions; thus, different and unique approaches may not be problematic if they are intentional and the reasons for the differences are well understood. However, we found that the current state, which reflects historical patterns inherited from pre-USSF units, may be misaligned with the intentions of the USSF.

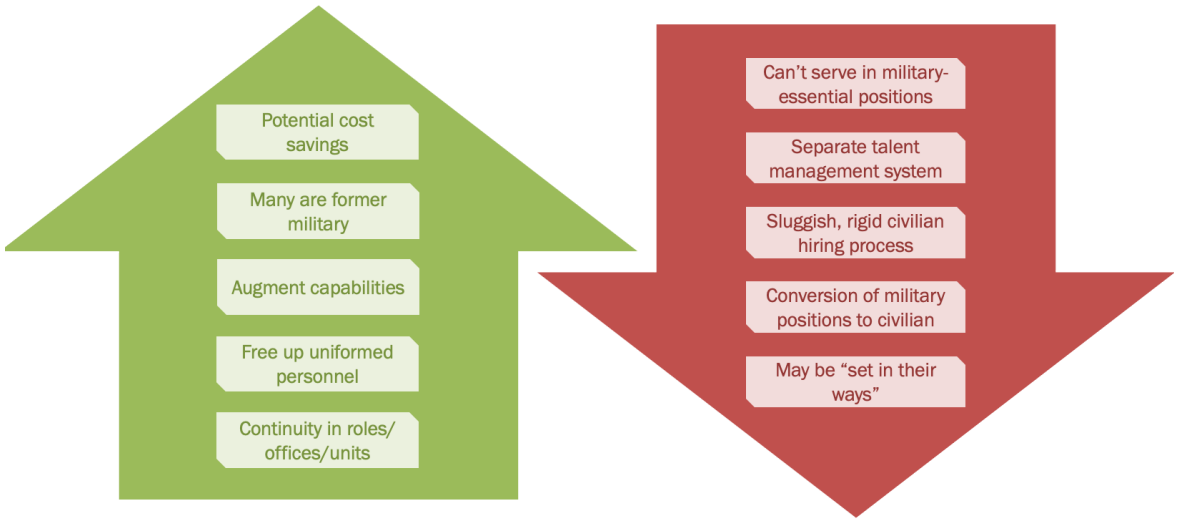
Furthermore, there is an overarching concern about retaining technical expertise in the USSF that goes beyond space operations—including cyber and other career fields—which complicates the question of whether officers need to be the technical experts. Interviewees mentioned several times that it is tough to retain individuals with technical expertise because of competition with industry, which can offer better pay and lifestyle (such as a stable location and more-defined work hours) to people with the same skills and competencies. However, they do not have data yet to confirm specific areas where retention may be a problem, because the service is so new. This problem could be exacerbated by placing enlisted personnel in roles that require considerable technical expertise, given their lower pay and historically lower retention rates, unless accompanied by additional incentives to improve retention. There may be an argument that if officers are more easily retained, they could be a

more stable source of technical expertise, although that goes against the more common convention of enlisted personnel holding the technical expertise.

Civilian Workforce as Ad Hoc Gap Fillers

Unlike the case with officers and enlisted personnel, no concerns were raised around the overlap between civilian and military personnel. Instead, interviewees typically considered civilians and contractors to be an effective way to augment capabilities. That said, there are both benefits and challenges associated with the incorporation of a civilian workforce into a military organization, the most prevalent of which are summarized in Figure 4.

Figure 4. Benefits and Challenges of a Civilian Workforce



Civilians can provide continuity in the roles they fill, which is not the case for uniformed personnel, who are moved around every few years. Civilian experts can be less costly to employ and spend less time preparing for a position than military personnel, who might require years of expensive training (Gates and Robbert, 1998; Lamping Lewis et al., 2016). However, civilians are not necessarily less expensive to employ than military personnel in all situations (U.S. Government Accountability Office, 2018). Interviewees acknowledged that many civilians are also former members of the military and bring a combination of subject-matter expertise and military-specific knowledge and skills. Placing civilians in all positions that they can fill also frees up uniformed personnel to take on military-essential roles, especially during times of combat, which may otherwise be vacant.

Challenges also arise when incorporating civilians into a military workforce. Some roles, for example, must be filled by military personnel, particularly those requiring "command and control of crisis situations, combat readiness, or esprit de corps; when unusual working conditions are not conducive to civilian employment; or when military-unique knowledge and skills are required for successful performance of the duties" (DoD Directive 1100.4, 2005, p. 3).

Among the differences between a civilian and military workforce, interviewees noted that civilians are managed under a separate talent management system and that there are perceived differences in

their quality of life. Civilians and contractors are perceived to have a more relaxed lifestyle and approach to their work, more-defined work hours, and a limited scope of responsibilities, all on top of seemingly better pay, benefits, and amenities. Unclear and complicated policy and guidance around the conversion of military positions to civilian positions can hinder efforts to make such conversions, which are further thwarted by the slow, rigid civilian hiring process (Lamping Lewis et al., 2016). Finally, interviewees noted the potential for the continuity brought by civilians to be accompanied by a stubborn mindset in which civilians are seen as "set in their ways" and strictly adhering to "the way things have always been done."

Despite these tensions, the USSF has an opportunity to address the majority of these challenges. Interviewees were adamant that military-essential positions in the USSF may look very different from those in other services, as greater proportions of the work and mission set can be done remotely—which may open different opportunities to involve civilian personnel in more-operational roles. Activities that are traditionally associated with military service, such as ruck marching and firing guns, have no direct relevance to most USSF jobs. Moreover, civilians can be deployed and can even work complex or unusual work schedules, especially if those requirements are included in position descriptions and hiring terms. The USSF must reconsider what *military essential* means in the space context to identify the roles that civilians can fill (Thornhill, 2023).

While the primary way to minimize the challenges of having separate talent management systems for each type of personnel in the workforce is to develop one system to cover the whole workforce, that may not be realistic for the USSF at this time. Alternatively, the USSF should closely align the different systems to ensure that the same types of information are captured in each, particularly information that may be used in determining eligibility for a position. Access to comparable information on all personnel will make interchangeability of positions more feasible.

Addressing the perceived slow, tenuous process for hiring civilians may require a complete overhaul of the process, although some improvements to make the process quicker and more effective in bringing in needed skills may be feasible without drastic changes. Beyond that, the USSF can use existing hiring authorities to bring civilians into certain positions more quickly, and veterans' preference in particular can help in hiring civilians with military backgrounds in addition to the necessary expertise (U.S. Office of Personnel Management, undated). The USSF will continue to benefit from using contractors for specific mission needs and could likely expand the roles in which contractors are used. Interviewees highlighted the associated convenience of being able to hire contractors more quickly and the cost-effectiveness of civilians compared with military personnel for positions that require specific skills. For positions that do not require military personnel, the USSF can redefine requirements so that military and civilian personnel can be used interchangeably in a way that best meets mission requirements.

In addition to these process and policy changes, a cultural shift can help address several of the challenges associated with civilian personnel. If it is true that civilians are sometimes "set in their ways" and unwilling to evolve during their time in a position, the USSF can reset expectations for civilians about the workforce environment and the need to adapt to changes in how things are done. Conversely, to the extent that this notion is untrue, creating a culture in which uniformed and civilian personnel work together more cohesively may limit such negative perceptions. While changes to an organization's culture usually require a major effort, the USSF—as a small service that is still

evolving—has an opportunity to establish its own culture regarding how civilians are treated and how they are expected to contribute to the USSF (Thornhill, 2023). The USSF will need to make deliberate decisions and actions in hiring, compensation, leadership attitudes, and leadership behaviors to ensure that civilians operate as an integral part of the force rather than perform only support or oversight roles.

Overarching Observations

In exploring the current distinctions among officer, enlisted, and civilian roles in the USSF, it became apparent that there are gaps in how workforce roles are determined and in setting workforce policy more generally. These issues exist at a time when the USSF is still evolving and determining its optimal structure, and some of the current state (such as the current officer-heavy workforce) may shift as the USSF establishes mission requirements and the path to achieve them. However, this state of evolution makes deliberate decisions about workforce roles in the near term even more crucial.

USSF Lacks a Deliberate Approach to Determining Workforce Roles

Given the close ties between the ratio of officers to enlisted personnel in a unit and the roles given to each, we start with an observation about the officer-heavy force. If the USSF continues with the currently officer-heavy force, it may face retention problems among enlisted members because of a lack of career opportunities for them to advance into leadership and highly skilled technical positions. In an officer-heavy force, the USSF could offer alternative career opportunities to enlisted members to aid in retention. One suggestion we heard from interviewees was for the USSF to create new pathways for the enlisted workforce to accede to the officer ranks. (Although interviewees did not specify what new pathways would look like, one potential pathway could be for enlisted to accede to an O-3 or higher rank rather than starting at O-1.) Another option to retain technical expertise is to develop a formalized pathway to transition from enlistment to USSF civilian employment. If an officer-heavy force is not right for the long run, the USSF will need to think of novel ways to retain and develop strong noncommissioned officers—something that was brought up repeatedly in our focus groups. Both career field managers and participants in unit focus groups suggested warrant officer–like positions as a way to retain technical expertise.[4]

The USSF also needs to give thoughtful attention to how the civilian workforce could be used. Despite some concerns that government civilians cannot fill certain roles because they lack military experience, many civilians are retired military members and bring not only subject-matter expertise but also military-specific knowledge and skills. Despite optimism about the potential for expanded civilian roles, interviewees expressed concern that positions will continue to be staffed with a certain type of personnel (i.e., civilian, contractor, or uniformed) simply because that is how it was done in the past rather than being based on a holistic assessment of what might be the best type of personnel to fill a position now. One interviewee shared a specific example where a role was at one time filled with a

[4] In fact, DAF leadership has approved the creation of "technical tracks" for USAF cyber officers and potentially cyber enlisted (see Lohr, 2023).

contractor because there was a shortage of available uniformed personnel. Subsequently, the role continued to be filled by a contractor without an assessment of whether a civilian or uniformed member might be better suited for the role. A more deliberate approach would follow the A-76 procedures (U.S. Office of Management and Budget, 2003). In fact, one of the USSF squadrons that has clearly defined personnel roles, 10 SOPS, transferred from the Navy and had previously undergone an A-76 analysis.

New requirements, such as those related to Space Force Generation (SPAFORGEN), will influence manning needs and potentially redefine personnel roles. SPAFORGEN is the force generation cycle model that the USSF intends to use to present its forces.[5] The USSF will need to present eight crews for all missions to support SPAFORGEN (Space Force Guidance Memorandum 10-401, 2023). Under current manning, it is unlikely that most missions can create eight crews, which calls for more attention to how to best use the whole workforce (officers, enlisted, civilians, and contractors) to fill these roles.

In the longer term, USSF manning needs and personnel roles will also be affected by increased automation of space operations—something that is already an industry standard and was mentioned in our unit focus groups. In discussing the roles of officers, enlisted, and civilians, multiple focus groups pointed out that roles and manning needs would be very different in a future with more-automated space operations, requiring fewer guardians on a console and less technical expertise among human operators. One group explained that automation is already an industry standard; commercial space companies, such as SpaceX and Intelsat, have few or no human operators in their control centers.

USSF Lacks Deliberate Policies Guiding Workforce Planning

The USSF conducts a wide range of missions and operates very different weapon systems. It follows that senior leadership must decide if all units will have the same officer-enlisted proportions and roles or if they should vary based on mission. This need was raised by individuals on the S1 staff, career field managers, and focus group participants.

The USSF has an opportunity to take the best of what works from different units and organizations instead of defaulting to "Air Force 2.0." However, the lack of USSF guidance and policy means that units are left to their own devices to address a wide range of personnel or organizational challenges. For example, Delta 7 and Delta 8 are working now to generate personnel arrangements and organizational design practices to execute their missions despite the lack of USSF guidance and policy. The outcome is a varied patchwork of unit-level practices that reflect different USSF missions and unit leadership styles. This patchworking is not inherently bad, but such arrangements should be based on deliberate decisionmaking.

[5] The SPAFORGEN model formalizes a three-phase cycle approach across all operational missions that includes a prepare phase, when crews will reconstitute, conduct training, and be equipped; a ready phase, when crews will conduct high-end training to validate readiness; and a commit phase, when crews will deploy or employ in place to perform missions. The previous force generation did not require as many crews per mission. For additional information, refer to Space Force Guidance Memorandum 10-401, 2023.

This sentiment was expressed most clearly by the unit focus group participants, even those who were satisfied with the differentiation in roles among their officer, enlisted, and civilian workforce. In a way, the patchwork of practices sets up natural experiments from which to draw comparisons and best practices. However, the lack of coordination across efforts results in potential inefficiencies without a formal mechanism for disseminating lessons learned or purposeful experiment design. There is also a lack of formal tracking of key performance and effectiveness metrics (beyond anecdotal evidence) to inform an evaluation of what is the best fit for the USSF.

With the number of policy changes and separate solutions being brought forward on any given day, individuals across units are starting to experience change fatigue. This can create a sense that senior leaders and headquarters personnel do not know or do not care about the everyday problems the current officer and enlisted structure is causing, which is contributing to burnout and a loss of morale. By establishing policy to guide workforce decisions in the nearer term, the USSF can avoid additional change fatigue.

Considerations and Constraints for the USSF in Rebalancing Officer, Enlisted, and Civilian Roles

To effectively use officers, enlisted, and civilians, the USSF will need to rebalance the roles that each type of personnel fills. This process is neither simple nor straightforward, and existing guidance on the subject is limited. The USSF needs to clarify how roles should be assigned to officers and enlisted personnel and, in doing so, take account of such constraints as budget, caps on military manpower, the eight-crew requirement for SPAFORGEN, and unit structure.

One potential solution would be to bring civilians into more roles, as they can likely fill the majority of positions across the USSF and may be less costly than uniformed personnel in the same positions. Still, civilians come with constraints that need to be worked out, including potential limitations on their ability to support 24-hours-a-day, 365-days-a-year missions and other restrictions on civilian roles; the ability to sustain the military personnel pool and promotion pyramid; and personnel development pathways that are not yet set up for civilians in the same way as for officers and enlisted personnel.

The USSF will not be able to get to a single perfect model of what the mix of officers, enlisted, and civilians should look like, as the constraints vary greatly by squadron, delta, and mission. However, the USSF has an opportunity to test different options for filling workforce roles. To a certain extent, given the variety of force mixes present in different units, this is happening already, though not in a well-documented, deliberate, and systematic way. One of the many considerations that came up during interviews was the ability to balance guidance and policy with the flexibility needed to apply such guidance and policy to varying requirements. There is a spectrum of options that the USSF can consider, from the more flexible to the more formalized, as illustrated in Figure 5. The USSF can develop policies and processes that *guide* decisions while permitting flexibility and nuance in how they are applied. Or the USSF can develop strict, centralized, and formalized policies and processes with minimal flexibility in their application, which would *prescribe* a specific decision as to who should fill a given role.

Figure 5. Spectrum of Policies from More Flexible to More Formalized

Developing a Rubric to Guide or Prescribe Workforce Role Decisions

A rubric can help establish a deliberate and systematic approach to making these decisions while allowing for conversation, disagreement, and adjustments, as well as unique applications when necessary. We developed an example rubric outlining select areas of responsibility relevant to USSF missions that were mentioned during our interviews and focus groups (see Figure 6). The solid gray circles indicate areas where a particular type of personnel is currently filling positions, and the empty circles are areas where that type of personnel is generally not being used to fill positions. Generally, this rubric conveys the large amount of overlap between officers and enlisted personnel, as well as the ad hoc use of civilians to primarily fill gaps. In contrast, the rubric in Figure 7 depicts potential changes to officer, enlisted, and civilian roles that were suggested by participants in our interviews and focus groups.

Figure 6. Rubric Reflecting the Current State of Workforce Roles

Areas of Responsibility	Officers		Enlisted		Nonmilitary	
	Junior	Senior	Junior	Senior	Civilians	Contractors
Organizational leadership	○	●	○	●	●	○
Operational command	●	●	○	●	○	○
Strategic planning	○	●	○	●	○	○
Wartime oversight	●	●	○	●	●	○
Execute ops tasks (NUDET, COMSEC)	●	○	●	●	●	○
Execute ops tasks (other)	●	○	●	●	●	○
Deploy	●	●	●	●	●	○
Tactical expertise	●	●	●	●	○	○
Equipment custody	●	●	●	●	○	○
Technical systems expertise	●	●	●	●	●	●
Administration/human resources	○	○	○	●	●	○
Facilities support	○	○	○	○	●	○
System support	●	○	○	●	●	●

● currently fill positions ○ does not currently fill positions

SOURCE: Analysis of interview and focus group data, manpower documents, and USSF and DAF guidance (Air Force Instruction 1-1, 2023; Air Force Instruction 36-3701, 2010; Space Doctrine Publication 1-0, 2022; Space Operations Command, 2023; DAF, 2022; USSF, 2020; USSF, 2021).
NOTE: COMSEC = communications security; NUDET = nuclear detonation; ops = operations.

Figure 7. Rubric with a Suggested Menu of Future Options

Areas of Responsibility	Officers		Enlisted		Nonmilitary	
	Junior	Senior	Junior	Senior	Civilians	Contractors
Organizational leadership	◍	●	○	●	●	○
Operational command	●	●	○	●	○	○
Strategic planning	◍	●	○	●	◍	○
Wartime oversight	●	●	○	●	●	○
Execute ops tasks (NUDET, COMSEC)	●	○	●	●	●	○
Execute ops tasks (other)	◎	○	●	●	●	◍
Deploy	●	●	●	●	●	○
Tactical expertise	●	●	●	●	◍	○
Equipment custody	●	●	●	●	◍	○
Technical systems expertise	◎	◎	●	●	●	●
Administration/human resources	○	○	○	●	●	○
Facilities support	○	○	○	○	●	◍
System support	◎	○	○	●	●	●

● Currently fills positions ○ Does not currently fill positions ◍ Does not currently but could fill positions
◎ Currently fills positions but may not be best practice

SOURCE: Analysis of interview and focus group data, manpower documents, and USSF and DAF guidance (Air Force Instruction 1-1, 2023; Air Force Instruction 36-3701, 2010; Space Doctrine Publication 1-0, 2022; Space Operations Command, 2023; DAF, 2022; USSF, 2020; USSF, 2021).
NOTE: COMSEC = communications security; NUDET = nuclear detonation; ops = operations.

These different options evolved from discussions about what seemed to be working and what was not working in the current state. The solid orange circles indicate responsibilities that the type of personnel could be used to fill, though are not currently. The empty orange (bold) circles indicate responsibilities where that type of personnel is currently being used but likely does not have to be used. This future-oriented rubric highlights areas where overlap between officers and enlisted personnel could be minimized and additional positions that civilians could possibly fill. Example areas of responsibility in Figure 7 where these types of changes could be made are strategic planning, conducting of other operations, and technical expertise.

Strategic planning is an area where senior officers and enlisted personnel have been filling roles, but we identified this as an area where junior officers and civilians can likely fill roles, either as the first choice or to fill gaps. This option reflects the initiative underway in Delta 8 to expand strategic and joint planning competencies in the junior officer corps (Paek and Crews, 2023). Another example, execute operational tasks (other), indicates the responsibility of conducting less-sensitive operations. Here, we suggest that junior officers do *not* need to be in these positions and, in addition to the junior and senior enlisted personnel and civilians already filling these positions, contractors could likely also fill these gaps—as demonstrated by the successful contractor operations that have been working in 10 SOPS.

Roles that require technical system expertise can continue to be filled by junior and senior enlisted personnel, civilians, and contractors but likely do not need to be filled by junior and senior officers, as

demonstrated by the units filled via interservice transfer (10 SOPS and 53 SOPS and, to some extent, Delta 7). This example underscores the many options the USSF has from which to draw technical system expertise, potentially alleviating the concern over the degree to which officers need to fill roles that call for technical expertise as well.

By using such a rubric, the USSF can arrange information to display where remaining overlaps or potential redundancies exist. It provides a menu of options to refer to as the USSF designs its unit manning documents, competencies, and personnel development plans. This rubric is not meant to provide the entire answer. Instead, it is an example of a starting point for how the USSF can think about the type of personnel that can and should fill each position in a systematic way that illuminates not only how the workforce is currently used but also different options for future considerations.

In Figure 8, we list general guidelines for clarifying role distinctions across different personnel types. These guidelines, combined with the previously described considerations and constraints for each personnel type, can be used as a starting point to determine where and how to increase the number of civilians and enlisted personnel. There are some natural bounding cases. For example, officers could fill most positions, but this is not feasible because of budget constraints. Civilians can be used more extensively, but there will likely always be a need for some military presence in units as oversight, so a 100-percent civilian staffing may not be a desired option in certain areas of responsibilities. In many units, enlisted personnel can also fill most positions, with officers reserved for major leadership roles. The key will be to identify the right personnel for the mission across the service.

Figure 8. Example Guidelines for Rebalancing USSF Role Distinctions

Officer-only	Civilians Could Fill
• Leadership roles (e.g., commander) • Strategic planning roles – Joint interfacing roles • Engineering roles • Positions that truly require an advanced educational background	• Talent Management or Human Resources for both civilians and uniformed personnel • Program or project management at Delta and Headquarters levels • Overseeing and filling unique technical positions • Space ops and intel • Leadership of both civilians and uniformed personnel • Administrative and facilities support
Enlisted Could Fill	**Military-only**
• At senior level, nearly anything • Technical and tactical expertise roles • Executing space operations	• Positions with responsibility for combat power projection (e.g., protect and defend operations) • Positions requiring 24/7 on-call or unique work environments, unless part of hiring terms for civilians

Suggested Approaches for Using the Rubric

To meet the demand for better clarity, the USSF will need to rebalance officer and enlisted role distinctions and redefine the realm of possible positions for civilians while also considering the optimal

total force mix. Our example rubric can be used to guide the USSF in making systematic decisions for assigning positions beyond filling gaps on an ad hoc basis. As a starting point, we identified two approaches for how the USSF can rethink its total force mix and use the rubric in Figure 7. While these approaches are not meant to represent the full set of possibilities, they illustrate two plausible starting points that the USSF can reference to determine which approach is the best match for the USSF's workforce strategy, given the known constraints. It is possible a combination of the two would work best, and it is highly likely that the best approach will vary by position, unit, or mission, among other factors. The first approach would be as follows:

1. Identify the positions that absolutely must be filled by military personnel by referencing what responsibilities in the rubric have no option to be filled by nonmilitary personnel.
2. Fill the military-only positions.
3. Fill everything else with civilians.

This approach would result in a civilian-heavy workforce, which interviewees proposed as both a realistic and, in some cases, an idealistic version of the USSF workforce. However, pursuing a civilian-heavy workforce would need to be a conscious choice for the USSF.

The second potential approach would be to do the following:

1. Fill positions with officers and enlisted personnel until military manpower caps are reached. Here, the rubric can be used to show which types of positions could be filled by only enlisted personnel and where there is a flexible option for leadership to decide on using either an officer or an enlisted guardian.
2. Fill any remaining gaps with civilians.

This is close to the status quo, except that civilians can, and likely should, be used to fill more gaps than they have thus far. The rubric in Figure 7 provides a menu of options for civilians that is more extensive than what is currently being used, which can inform either of these approaches or a combination of them.

Conclusions

As USSF leadership continues to make decisions about the best use of all personnel in its workforce, several factors must be incorporated into these decisions. First, if the USSF decides to adopt a more flexible philosophy in developing personnel guidelines, it must identify metrics of performance and effectiveness to evaluate how well different options are working. Metrics will enable objective determination about best practices and—given the diversity of missions and communities within the USSF—inform guidelines to apply across the USSF and those that are community specific. The USSF should consider comparing different personnel mixes by either (1) using a demonstration program with selected units or (2) leveraging the different units the USSF already has with different personnel role distinctions as natural experiments for comparison. In either of these cases, the USSF should pay close attention to retention, monthly reported readiness, and measures of organizational climate (e.g., Defense Organizational Climate Survey results) as indicators of unit performance associated with the different experimental combinations of mission type and personnel use. The aim

would be to show which personnel role distinction approach results in the best unit performance outcomes and to account for factors associated with different mission types.

Next, if the USSF's goal is to treat all personnel as guardians—whether officers, enlisted personnel, or civilians—and to fill positions in unique ways that are not currently being done, the USSF will also need to align opportunities and job requirements for each type of personnel. These opportunities and requirements include trainings and continued educations; promotions even without supervisory experience; deployments; 24-hours-a-day, 365-days-a-year work hours; military oversight of civilian workforces; and civilian oversight of military workforces.

Lastly, while the focus of this report is on the near-term issues that need to be addressed, there are foreseeable longer-term issues that will need to be taken into consideration. The USSF should consider what adjustments to officer, enlisted, and civilian personnel would ease the transition to a future that is likely to have increased automation and fewer required personnel, which is becoming the industry standard. With confusion and change fatigue already identified as the USSF stands up, the USSF would do best to anticipate that next challenge with personnel decisions now that will facilitate a future transition to increased automation.

Appendix A

Research Methodology

To characterize how the USSF distinguishes between the roles of military and civilian personnel, as well as between officers and enlisted personnel, we integrated findings from a review of relevant DoD and DAF policy and guidance; assessment of unit manning data from the Manpower Programming and Execution System; interviews with stakeholders across the USSF; and, for an in-depth look, focus groups with USSF Space Delta 8 and Space Delta 7 personnel located at Schriever Space Force Base and Peterson Space Force Base, respectively. These methods are described in greater detail below.

Document Review and Personnel Data Analysis

We started with a review of DoD and DAF policies and guidance that outline how to differentiate among officers, enlisted personnel, and civilians. Title 10 of the U.S. Code and DoD policy establish many of the differences in rank, pay, educational requirements, and responsibilities between officer, enlisted, and civilian personnel. We reviewed relevant Air Force documents, such as Air Force Instructions 1-1 (2023) and 36-3701 (2010), which preceded the establishment of USSF but could provide additional historical context. We included such USSF documents as *The Guardian Ideal* (USSF, 2021), *Spacepower* (USSF, 2020), Space Doctrine Publication 1-0 (2022), the USSF Competency Framework (DAF, 2022), Space Operations Command's *2023 Strategic Plan* (2023), and career field recruiting webpages (USSF, undated-a; USSF, undated-b). We also examined other services' practices regarding distinctions among personnel types as a context for USSF policies.

To get a sense of the variation in the proportion of officer, enlisted, civilian, and contractor personnel across the operational units of the USSF, we examined personnel data from June 2023 from the Manpower Programming and Execution System.

Interviews

We conducted semistructured interviews with headquarters staff, particularly in S1, and officer and enlisted career field managers to gain an understanding of the way the USSF currently distinguishes among personnel types, what is and is not working, and whether any changes are planned. The full interview protocol is shown in the next subsection. Depending on the interviewee, we focused questions on either officer-enlisted differentiation, civilian-military differentiation, or both. We conducted a total of 14 interviews with representatives from the organizations listed in the following box.

Semistructured Interviews—Organizations

- USSF headquarters staff
  - Enterprise Talent Management Office
  - Manpower and Organization
  - Military Policy and Management
  - Space Force Development
  - Civilian Personnel
  - Integration Division
- Career field managers
  - Space (officers and enlisted)
  - Cyber (officers)[a]
  - Intelligence (officers and enlisted)
  - Engineering/Acquisition (officers)

[a] There is a career field manager for enlisted cyber guardians, but we were not able to conduct an interview with them.

Interview Protocol

We gathered information about similarities and differences between (a) enlisted personnel and officers and (b) military personnel and civilians, including contractors; the impacts of these differences; and how the USSF can navigate any challenges related to these differences.

Divides Between Officers and Enlisted Personnel

Identify current challenges involving the distinction between officer and enlisted roles and develop courses of action for addressing these challenges.

- How do the jobs of USSF officers and enlisted personnel compare? How are they similar or different?
- How do the competencies of USSF officers and enlisted personnel compare? How are they similar or different?
- Which, if any, specific types of missions require unique roles for officers and enlisted guardians? What has led to the establishment of these unique roles (i.e., are differences historical, intentional, or incidental)?
- Which, if any, specific types of missions do not require unique roles for officers and enlisted guardians? Why do these not require unique roles?
- What are the benefits of having distinct roles for officers and enlisted guardians? What are the drawbacks?
- When there is overlap between officer and enlisted duties within a unit, what are the impacts?
- What efforts are in place to increase retention of enlisted guardians?
- How would changes to the differentiation between officer and enlisted roles affect the USSF?
- How, if at all, has the USSF considered using warrant officers?
- How does officer and enlisted personnel management factor into USSF decisions on the use of and reliance on civilians and contractors?

Divides Between Civilians, Including Contractors, and Military Personnel

Identify current challenges involving the distinction between civilian (including contractor) and military roles and develop courses of action for addressing these challenges.

- How do the jobs of civilians, including contractors, compare with those of military personnel in the USSF? How are they similar or different?
- How do the competencies of civilians, including contractors, compare with those of military personnel in the USSF? How are they similar or different?
- Which, if any, specific types of jobs require unique roles for civilians, including contractors, and guardians? What has led to the establishment of these unique roles (i.e., are differences historical, intentional, or incidental)?
- Which, if any, specific types of jobs do not require unique roles for civilians, including contractors, and guardians? Why do these not require unique roles?
- What are the benefits of having distinct roles for civilians, including contractors, and uniformed guardians? What are the drawbacks?
- When overlap exists between uniformed USSF personnel and civilians, including contractors, what are the impacts?
- What challenges arise in integrating DAF civilians into USSF roles?
- What, if any, challenges does the current talent management system face in determining roles for civilians?
- How can the USSF best navigate the distinction between civilian and military personnel in a way that increases the benefits and decreases the challenges?

Focus Groups

In June 2023, we conducted focus groups with USSF Space Delta 8 and Space Delta 7 personnel located at Schriever Space Force Base and Peterson Space Force Base, respectively (see Table A.1). The focus groups were designed to provide insights from operational units. Delta 8 was chosen to show the differences in how officers, enlisted personnel, and civilians are used in units that transferred from the USAF, the Army, and the Navy. Delta 7 was chosen, with sponsor input, to examine how other communities in the USSF outside the space operations community might be affected by decisions about the roles that officer, enlisted, and civilian personnel will fill. Participants in the Delta 8 focus groups represented 2 SOPS, 4 SOPS, 8 CTS, 53 SOPS, and 10 SOPS. Participants in the Delta 7 focus groups represented the 71st, 72nd, 74th, and newly activated 75th ISRSs.

Table A.1. Focus Group Sampling

Parent Unit	Unit	Focus Groups
Space Delta 8	2 SOPS	• Leadership • Officers • Enlisted
	4 SOPS	• Leadership • Officers • Enlisted
	8 CTS	• Leadership • Officers • Enlisted
	53 SOPS	• Officers • Enlisted
	10 SOPS	• Leadership
Space Delta 7	71 ISRS 72 ISRS 74 ISRS 75 ISRS	• Junior enlisted • Noncommissioned officers and senior noncommissioned officers • Company grade officers • Squadron leadership (both commanders and senior enlisted leaders)

Overall, we held 16 focus groups. At Delta 8, as much as possible, we conducted three separate focus groups for each squadron: enlisted guardians, officers, and squadron leadership. This amounted to 12 total focus groups. We held four focus group discussions at Delta 7 with participants across multiple squadrons. These focus groups were separated into groups of junior enlisted members, noncommissioned officers and senior noncommissioned officers, company grade officers, and squadron leadership (comprising both commanders and senior enlisted leaders). In some cases, individual government civilians from the units joined a focus group and participated in the discussions.

The objective of the focus groups was to identify and discuss current dynamics and challenges involving the distinction between officer and enlisted roles at the unit level, with additional attention paid to the division between military and civilian roles (including government civilians and contractors). In conducting these focus groups, we used the interview protocol shown in the next subsection. After we conducted the focus groups, we performed a thematic analysis of each discussion to summarize for each unit: (1) a description of how officers, enlisted personnel, and (when possible) civilians and contractors are differentiated in the unit; (2) advantages of the current differentiation; (3) disadvantages of the current differentiation; and (4) other unique factors about the unit. Further detailed findings from the units can be found in Appendix B.

Focus Group Protocol

We gathered information with the aim of assisting the USSF in understanding and addressing distinctions between key populations. We specifically focused on the distinctions between (a) officer

and enlisted roles and mission sets and (b) military and civilian (including contractor) roles and mission sets.

- How do the jobs of USSF officers and enlisted personnel compare in your unit? How are they similar or different?
- Are similarities or differences intentional or historical?
- How do the competencies of USSF officers and enlisted personnel compare in your unit? How are they similar or different?
- Which, if any, specific types of missions require unique roles for officers and enlisted guardians?
- Which, if any, specific types of missions do not require unique roles for officers and enlisted guardians? Why do these not require unique roles?
- What are the benefits of having distinct roles for officers and enlisted guardians? What are the drawbacks?
- When there is overlap between officer and enlisted duties within a unit, what are the impacts?
- If the overlap between officer and enlisted jobs were eliminated—for example, by clearly dividing and assigning separate jobs—what would be the impact on
  - retention and readiness for the USSF
  - training or education pipelines
  - USSF culture?
- In your unit, what are the deciding factors that determine what is done by officers versus what is done by enlisted personnel?
- What determines what is done by civilians or contractors?
- Is there a clear distinction of what jobs must be done by military personnel?

Appendix B

Additional Focus Group Data

In this appendix, we provide highlights from focus groups held with Delta 8 and Delta 7 and from discussions with USSF headquarters S1 staff. The focus of these discussions was on the differentiation between officers and enlisted personnel except for those in 10 SOPS, who described their current state of contractor operations.

Space Delta 8: 2 SOPS, 4 SOPS, and 8 CTS

Current State

- Junior officers are interchangeable with enlisted guardians.
- Officers take leadership positions and provide top cover and advanced-degree knowledge.
- On crew, at least one officer is needed, to make decisions.
- Officers and enlisted go through the same training in the same classrooms.
- Officer and enlisted roles are based on historical precedent.

Advantages of Current State: Officer Experience and Flexibility

- Officers get experience on a console to understand operations—although other units refute the necessity of time on a console for officers.
- Flexibility exists for officers and enlisted to fill in for each other if the unit is facing personnel shortages.
- Potential exists for more communication across ranks.

Disadvantages of Current State: Low Morale and Confusion

- Both officers and enlisted lack early leadership opportunities.
- Customs and courtesies can be lost, which can diminish officer authority.

Other Considerations

- One squadron, 2 SOPS, recently adopted a rationale for certain crew positions to be officer-only.

- Additionally, 2 SOPS expects that officer and enlisted differentiation will improve with a new system upgrade.

Space Delta 8: 53 SOPS

Current State

- With delta commander support, the unit retained the traditional Army structure; clear delineation existed, in which officers lead and enlisted execute this mission.
- Officers have leadership and strategic planning duties and no mission qualification training.
- Enlisted are technical experts; they gain tactical experience through 1C courses; senior noncommissioned officers teach captains and lieutenants.
- The operations floor has no officers and may be run by E-5 personnel.

Advantages of Current State: Clarity and Leader-Building

- Positive morale and unit identity can develop.
- Enlisted get earlier opportunities to be independent leaders.
- It is acceptable and part of the learning process to make mistakes.
- Officers are more prepared for future staff roles.

Disadvantages of Current State: Culture Clash

- Growing pains exist in integrating officers from the USAF.
- Culture of professionalism clashes with the more casual space operations community.
- Units still lose enlisted personnel to industry.

Other Considerations

- Some lieutenants still get qualified in crew positions.
- If systems were upgraded to industry standards (e.g., automation), they would need much less manning.

Space Delta 7: 71, 72, 74, and 75 ISRSs

Current State

- Units kept the traditional USAF intelligence structure; a small officer cadre leads and manages enlisted operators.

- Officers apply technical system training in leadership roles, not as operators.
- Delta headquarters personnel shortages burden senior enlisted and civilians with additional duties.
- Unit challenges include readiness strain, lack of enlisted development paths, and strained professional culture.

Advantages of Current State: Clarity

- Officers and enlisted are clear on duties.
- Absence of job overlap between officers and enlisted minimizes the retention concerns that space operators face.
- Officers effectively communicate down the chain of command for transparency with enlisted personnel.

Disadvantages of Current State: Innovation and Readiness Strains

- Without clear guidance, intelligence units "copied and pasted" USAF structure to the USSF.
- Burnout occurs among enlisted if officers are unaware of operator work tempo.

Other Considerations

- The 71 ISRS personnel embedded within other operational deltas experience overlap among officer and enlisted job duties.
- However, 75 ISRS is mid–stand up and still determining manning construct and job duty arrangements.

Headquarters S1 Staff Perspectives

Current State

- Junior ranks of officer and enlisted personnel are very similar.
- Officers will branch into leadership roles, while enlisted will gain technical skills in their field as each progress through the ranks.
- Competencies will be rank agnostic.
- Unit structures were inherited from the Air Force Space Command.

Advantage of Current State: Flexibility

- Rank-agnostic billeting and competencies allow for flexibility in manning.

Disadvantages of Current State: Retention and Morale Strain

- Blurred lines create morale issues that can or will affect retention and unit readiness.
- Lack of clarity on roles leads to difficulty understanding requirements for career progression.

Other Considerations

- We did not speak to any uniformed personnel in S1 headquarters, so answers were based on indirect exposure to operational units and prior experience in other services.

Space Delta 8: 10 SOPS (Mostly Regarding Contractor Operations)

- History of manpower analysis was from when unit was in the Navy (A-76 study); aim was to optimize cost and efficiency for each function with request for proposals versus government option.
- Unit embraced automation and had minimal staffing at the control center, with spikes only if an anomaly occurs.
- Commercial space companies, such as IntelSat and SpaceX, may have zero people in their respective control centers; military operations centers will always have to be staffed.
- Regarding after-hours reliability, civilians are subject to recall as specified in position descriptions; contractors have contract clauses (e.g., respond within five minutes, be on site within one hour).
- Roles are assigned based on background and ability to train in allotted time.
- Mixed signals were received from the USSF when the unit was incorporated into the USSF: keep what is working versus convert to the USAF way.

Abbreviations

CTS	Combat Training Squadron
DAF	Department of the Air Force
DoD	U.S. Department of Defense
ISR	intelligence, surveillance, and reconnaissance
ISRS	intelligence, surveillance, and reconnaissance squadron
SOPS	Space Operations Squadron
SPAFORGEN	Space Force Generation
USAF	U.S. Air Force
USSF	U.S. Space Force

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