# JOURNAL OF ADVANCED MILITARY STUDIES

# Vol. 15, No. 1, 2024

## JOURNAL OF ADVANCED MILITARY STUDIES

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Journal of Advanced Military Studies (Print) ISSN 2770-2596 (Online) ISSN 2770-260X

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The journal is indexed by ProjectMUSE, Scopus, ScienceOpen, EBSCO, ProQuest, Elsevier, OCLC ArticleFirst, Defense Technical Information Center, Journal Seek, IBZ Online, British Library System, Lancaster Index to Defense and International Security Literature, and AU Library Index to Military Periodicals.

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### A Call for Space-Domain Intelligence Training

Lieutenant Colonel Genelle M. Martinez, USSF

**Abstract:** U.S. Space Force intelligence initial skills training (IST) currently occurs via U.S. Air Force pipelines. However, as the Space Force matures, it must take ownership of its training programs. Consolidating guardian intelligence initial skills training under the purview of the newest Service fosters a critical space-domain focused mindset and guardian culture at the outset of a member's career.

Keywords: U.S. Space Force, space domain, intelligence, training, culture, identity

### Introduction

he U.S. Space Force's intelligence initial skills training takes place at Goodfellow Air Force Base (AFB) using U.S. Air Force curriculum. This training instills fundamental analytic skills, but operationally focuses on the air domain versus space domain. As a result, intelligence guardians graduate intelligence skills training without a critical baseline knowledge of the contested, degraded, and operationally limited space environment.<sup>1</sup> To remedy this disconnect, guardian intelligence training must be divorced from Air Force intelligence training. A stand-alone Space Force intelligence pipeline will drive cultural and operational advantages crucial to the long-term success of the nation's youngest Service.

### Scope

This research focuses on intelligence skills training, which is a guardian's first

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introduction to career-field-specific training and takes place immediately after basic military training (BMT). While BMT is central to military cultural indoctrination, it is outside the scope of this article. The Space Force will likely continue to leverage Air Force basic military training for the foreseeable future; this work instead seeks to influence dedicated Space Force training pipelines following BMT.

The Space Force currently sends new accessions (primarily second lieutenants and specialists) to separate cyber, space, and intelligence skills training "technical schools." Any changes to intelligence training due to a space-domain focused approach should inform curriculum development across all Space Force career fields. Future analysis is necessary to refine intermediate and advanced intelligence training as well.

### **Roadmap and Methodology**

This research examines the current state of intelligence skills training for guardians and why it must evolve. Culture ultimately lies at the heart of the argument for a separate, space-focused intelligence training pipeline. Historical Army Air Corps and Marine Corps case studies offer additional evidence for this radical shift in training.

### Background

Space Force initial skills training occurs separately among the Service's three primary operational career fields: space operations, intelligence, and cyber. Space operations training occurs at Vandenberg Space Force Base (SFB) in California, intelligence training at Goodfellow Air Force Base (AFB) in Texas, and cyber training at Keesler AFB in Mississippi.<sup>2</sup> Both intelligence and cyber personnel attend Air Force technical schools, providing trainees with a complete immersion in an air-centric training environment. The disparate foundational culture instilled in Space Force intelligence members due to their attendance at an Air Force technical school poses a challenge for Space Force leadership. A unique space culture should be instilled in new servicemembers, with intelligence skills training offering a critical opportunity early in a guardian's career.

After basic military training, initial skills training (IST) further develops a military mindset, lexicon, and belief system for both officer and enlisted trainees.<sup>3</sup> Intelligence guardians attend initial skills training for approximately six months.<sup>4</sup> Some students later attend additional specialized cryptologic training at Corry Station, Florida.<sup>5</sup> Overall, students obtain approximately two hours' worth of space-related training material during the entirety of their IST experience.<sup>6</sup> Most of this training is executed at the unclassified level, offering only basic, definition-based instruction.<sup>7</sup> The current curriculum teaches traditional analysis skills using the air domain but fails to prepare intelligence profession-als for the contested, degraded, and operationally limited space environment.<sup>8</sup>

As part of initial skills training, intelligence guardians attend several separate courses in support of various intelligence occupational specialties.<sup>9</sup> Student numbers range from 1 to 4 guardians per class, integrated with approximately 12–16 airmen (varying greatly depending on course).<sup>10</sup> This classroom dynamic falls short of providing meaningful attention to space-related topics or building a space-centric mindset. Interaction with other guardian students during IST, or even permanent party Space Force members, is sporadic at best while intelligence guardians are at Goodfellow AFB. After basic military training, initial skills training is arguably the most impactful experience of a new guardian's career, and it is here that the Space Force must solidify the foundation for guardian culture and identity.

### Argument

Transitioning intelligence IST from the Air Force to the Space Force facilitates a shared experience among Space Force trainees, again solidifying a cultural foundation first initiated in basic military training. Edgar H. Schein, author and leading expert in organizational culture, offers a worthwhile framework for how the Space Force can continue to foster a "space culture" in initial skills training. This cultural framework drives the argument for separating guardian IST from the Air Force. Currently, intelligence guardians study and focus on air-centric processes and threats. While this training is invaluable in teaching a student to think like an intelligence professional, students graduate technical school with a severe lack of baseline space knowledge.

### **Cultural Context**

The classic definition of organizational culture, set forth by founding expert Edgar Schein, provides a valuable lens through which IST culture can be examined.<sup>11</sup> Schein defines organizational culture as the "accumulated shared learning" of a group of individuals, established as they collectively work through challenges of "external adaptation" and "internal integration."<sup>12</sup> Their shared learning involves a "system of beliefs, values and behavioral norms" validated over time.<sup>13</sup> Through this validation, the system of beliefs evolves into "basic assumptions," which the organization then teaches to new group members.<sup>14</sup> Schein's definition offers a valuable framework for analysis, emphasizing shared learning, internal integration, and cultural DNA.

Schein identifies shared learning as the first key factor in organizational culture. It takes time for shared learning to accumulate and, thus, for a shared culture to develop.<sup>15</sup> The Space Force is in the earliest stages of this development process. Guardians must establish space-mindedness across their occupational specialties, including the intelligence career field, before a cohesive culture can take root. The current construct for initial skills training robs the Space Force of a vital opportunity to foster the distinct Service-wide culture it seeks to establish.

Shared learning can instill a common space-mindedness in IST trainees. The Space Force captures the need for a shared space-mindedness in its *Space Capstone Publication*, which charges guardians to focus on space's unique application and value.<sup>16</sup> In this seminal publication, the Space Force calls on servicemembers to "protect, defend, and project US spacepower."<sup>17</sup> To this end, guardians must pursue the science of warfighting and the art of mastering space.<sup>18</sup> This unique, space-centric blend of science and art provides the foundation for the Space Force's purpose, identity, and culture. The Space Force is the sole authority for cultivating a unique combat-ready service for the space domain, and guardians alone must answer this call.<sup>19</sup> The earlier in their career that intelligence guardians embrace this charge, the better they can support and integrate into the broader space domain. A lack of shared learning steeped in the knowledge of space prevents intelligence personnel from fully answering the charge set forth in the *Space Capstone Publication* to all servicemembers.

Current IST architecture denies intelligence guardians a critical opportunity for shared foundational, space-focused learning with other guardian trainees. This situation impedes the development of Space Force organizational culture because shared learning is considered the essential component of organizational culture's definition.<sup>20</sup> Shared learning results from collective education, time dedicated to a group's common experience, and leadership involvement.<sup>21</sup> By definition, shared learning must take place together. As intelligence and space operator trainees execute initial skills training separately, intelligence students immersed in an air-centric versus space-centric environment embody an Air Force culture after completing their training instead of a Space Force one. Intelligence guardians lack an opportunity for shared learning with their space counterparts until they reach their first operational units. Thus, the Space Force misses a vital opportunity early in intelligence training to establish true space-mindedness. This mindset is critical for the successful execution of space operations and is different from the air-mindedness instilled in them via their Air Force training.

Based on Schein's definition, internal integration is the second key factor that drives organizational culture. After the shared experience of learning drives initial cohesion and a common identity, the group stabilizes and builds on this foundation.<sup>22</sup> Identity further influences "internal integration," shaping how the organization views itself.<sup>23</sup> Once a culture forms through the inculcation of identity, the group passes its culture on to new members. However, much of what an organization learns is passed down only through direct membership and firsthand experience.<sup>24</sup>

Intelligence trainees presently are denied "direct membership" to the space community due to their disparate training location, and lack firsthand space experience in intelligence skills training, two crucial factors to their integration with space operators. Schein argues that learning predominantly takes place as a member becomes a part of a group's "inner circle."<sup>25</sup> The Space Force risks alienating nonspace operator career fields by failing to include them in the inner circle of space-centric training, which presently exists at Vandenberg SFB. Intelligence guardians are surrounded largely by airmen in their classrooms, have limited exposure to guardian instructors or other professional space mentors,

and only minimally study the space domain. The Space Force must integrate intelligence members into the "inner circle" of space-centric training at the outset of its Service-wide cultural development and individual's careers. Intelligence professionals waste valuable time when they arrive at their operational units due to a lack of early integration. Consequently, new members must navigate their intelligence roles and responsibilities in an operational setting, with no prior knowledge of the space domain or interaction with space operators. Background knowledge and experience in IST would greatly facilitate this operational integration and improve unity of effort among all Space Force mission stakeholders.

Cultural DNA, the last component from Schein's definition of organizational culture, can strongly influence the advancement of guardian culture. Cultural DNA is formed through an organization's earliest shared learning experiences and includes the "beliefs, values, and desired behaviors" that initially contributed to the group's success.<sup>26</sup> This learning is taught early and becomes so deeply ingrained that it cannot be altered without fundamentally changing the group as a whole.<sup>27</sup> *The Guardian Ideal* is a primary source of the Space Force's cultural DNA.

The Guardian Ideal is a foundational document for all Space Force servicemembers. It summarizes five key areas intended to build an organizational culture that enables warfighting in the space domain.<sup>28</sup> These areas include connecting in a collaborative environment, leading digital enablement, generating and engaging talent, developing and employing that talent, and integrating resiliency across the force.<sup>29</sup> This document also outlines a *Guardian Commit*ment, which sets forth team leader and team member roles and responsibilities as military professionals.<sup>30</sup> The values of character, connection, commitment, and courage are fundamental to both leaders and team members.<sup>31</sup> The focus areas and values outlined in The Guardian Ideal provide the building blocks of the Space Force's cultural DNA. These concepts apply equally to space operator and intelligence guardian trainees but are instilled unequally based on their disparate training environments. Space operators, surrounded by space professionals at the outset of their initial skills training, have key themes from The Guardian Ideal enforced throughout their day-to-day experiences. Intelligence trainees, however, attend guardian all-calls and mentorship sessions only as their Air Force training curriculum allows. Space-focused opportunities are secondary in this air-centric training environment. Until the Space Force breaks away from Air Force culture, space will continue to be taught and utilized as an extension of air power.<sup>32</sup> This secondary training prioritization drives negative messaging for new intelligence members and fails to communicate the inherent value of their chosen domain, space. The Guardian Ideal sets a cultural foundation for the Space Force-but its concepts are best achieved through operational application and lived experience over the course of time.

Culture is a time-intensive phenomenon, and the Space Force must proceed strategically. Creating a Service-level culture could take years and even decades.<sup>33</sup> The strength of a culture is contingent on time, and the Space Force must use every opportunity it can to unite guardians along the milestones of their careers.<sup>34</sup> The Space Force cannot reasonably build a Service-wide culture within four years of its creation as a separate Service. Space Force culture will take many years of cultivation based on the shared experiences of its space operator, intelligence, cyber, acquisitions, and engineering professionals. However, an optimal starting point for this shared experience is the initial training members attend after entering the military. Intelligence skills training integration for space operators and intelligence members offers a positive example for integration across space career fields. The Space Force has yet to evolve its organizational culture fully and is building one through its members' ongoing interactions.<sup>35</sup> How the Service builds its culture today will be critical to its long-term success.

Schein's definition of organizational culture sheds light on the current state of shared identity, or lack thereof, among intelligence and space operator trainees and how Space Force leadership can best move forward to establish a healthy, shared culture among all members. As these leaders work toward this objective, it is critical to consider how the Service can best instill culture at the earliest point of a guardian's career—across all occupational specialties. All guardians must understand, at a fundamental level, the space warfighting domain and internalize their place in the Service. Space Force culture must reflect a space-mindedness unique to the Service, ultimately shaping how the United States responds to future space threats.<sup>36</sup> As evidenced by the analysis of shared learning, internal integration, and cultural DNA, initial skills training is where the Space Force should focus its efforts.

### **Current Developments**

Space Force leadership recognizes that an evolving space domain demands intelligence professionals who possess a fundamental understanding of space. Adversaries increasingly seek to attack what they perceive to be an American overreliance on space, with this overreliance viewed as a strategic vulnerability.<sup>37</sup> In a December 2022 guidance memorandum, the Space Force chief of intelligence (S2) highlighted the emerging threat posed by Chinese and Russian counterspace capabilities. He wrote that "our service's journey is just beginning" and emphasized that those in the Service today are given a unique opportunity as its "initial architects."<sup>38</sup> These "architects" will also shape future Space Force intelligence capabilities as part of the Department of Defense and broader IC.<sup>39</sup> The S2 intends to optimize the organize, train, and equip (OT&E) function of the Space Force's intelligence enterprise to emphasize "critical thinking and data-driven problem-solving."40 The Space Force must evolve from "traditionally passive, reactive space operations which provide a service" to "intel-driven, predictive, and proactive all-domain operations."41 The memo concludes with an outline of the S2's strategic priorities, which includes the development of "digitally proficient intelligence professionals who are recognized as experts in

adversary space," along with the growth of baseline intelligence competencies, to include "analysis, collections, targeting, and integration with operations."<sup>42</sup> The S2 has thus emphasized not only traditional analytic skills, but integration with space operators—which requires a shared baseline in both knowledge and experience.

While the Service must move toward fully separating its intelligence skills training from the Air Force, it is taking initial steps toward providing a stronger space domain baseline—with Space Training and Readiness Command's (STARCOM) standup of the Space Intelligence Fundamentals (SIF) course at Goodfellow AFB designed to mitigate current intelligence skills training shortfalls.<sup>43</sup> The SIF course will provide a space-focused 20-day training "top-off," which includes essential space topics not covered in the Air Force curriculum.<sup>44</sup> This course will be executed immediately after initial skills training and leverage Air Education and Training Command (AETC) infrastructure, but the Space Force will provide the curriculum and instructors.<sup>45</sup> Officer and enlisted guardian students will attend the SIF course before their permanent change of station (PCS) to their first operational unit.<sup>46</sup> Based on technical school student throughput, approximately 160–200 students will attend the SIF course annually.<sup>47</sup> This course will build on and link to the Air Force curriculum.

The space threat environment is quickly evolving; while the SIF course offers critical training for intelligence guardians, the course is only a temporary fix. Twenty space-focused training days is not the same as a six-month IST steeped in space-domain curriculum. It is not possible to cultivate a Servicewide culture through shared experience and learning when intelligence members are trained separately from their fellow guardians. Nonetheless, SIF is a vital first step toward instilling organic domain expertise in the Space Force's newest intelligence members.

### **Case Studies**

As the Space Force considers improvements to guardian initial skills training, it should look to the initial experience of air intelligence professionals in the Army Air Corps, along with Marine Corps cultivation of an exclusive Service culture early in its members' training experience. These two case studies offer useful perspectives for how the Space Force should consider the future of intelligence training, with valuable lessons, if applied appropriately, that can fortify the Service in preparation of any conflict "in, from, and to the space domain."<sup>48</sup>

### Lessons from the Army Air Corps

The role of air intelligence in the U.S. Army Air Corps, and later the Air Force, sheds light on how space domain intelligence impacts space operations and the future of the Space Force. Military intelligence as an organized War Department activity first came into existence in 1885.<sup>49</sup> However, with no significant threat to U.S. security between the Civil War and the outbreak of the World Wars, intelligence operations were seen as "negligible."<sup>50</sup> There was a

pervasive attitude of "polite indifference" toward intelligence, with the United States extremely inexperienced in intelligence operations as the country entered World War I.<sup>51</sup> The Army Air Corps' initial attitude toward air intelligence is reminiscent of early Air Force views on space intelligence. Historically, space has been categorized as a benign sanctuary. However, today it is a warfighting domain—with intelligence playing a key role in understanding the growing threat environment.

The Army Air Corps underutilized and neglected air intelligence throughout both World Wars. As the country entered World War II, leaders placed intelligence demands on American analysts who were either "poorly trained or not trained at all."<sup>52</sup> The Army often assigned "misfits" to intelligence duties, using the G2 (intelligence directorate) as a "dumping ground" for those officers poorly suited to line command.<sup>53</sup> As a result, personnel experienced in intelligence were "virtually nonexistent" as World War II commenced.<sup>54</sup>

As the war progressed, intelligence processes improved based on real-world lessons and best practices, but intelligence never "succeeded in completely satisfying the demands of strategic air warfare."55 The necessity for a broader scope and volume of specialized air intelligence became apparent with a corresponding evolution of World War II aircraft and weapons.<sup>56</sup> At this point in American military history, Army Air Corps leaders recognized that trained personnel are vital to every staff function. This realization is especially true for intelligence operations due to the "great variety of skills required to support the intelligence mission" and the "inherent complexity of intelligence."57 Germany's assault on Europe and Japan's success in the Pacific "shocked" the United States, forcing America to realize that its intelligence operations were inherently weak.<sup>58</sup> By the close of the World Wars, the United States recognized the need for an independent Air Force to fight and win in the air domain.<sup>59</sup> With the genesis of the Air Force, service leaders also recognized the need for air-centric intelligence. There was no more significant proving ground for air intelligence than the great air battles of World War II. At the close of the World Wars, missions accomplished with maximum success-measured by lives and equipment saved-demonstrated the true value of air intelligence.<sup>60</sup>

After World War II, General Henry H. Arnold wrote that "past concepts of intelligence needs are insufficient to cover the requirements of modern war."<sup>61</sup> General Arnold's final report as commander in chief of the Army Air Forces highlighted deficiencies and the need for future improvements for "superior air intelligence on a global scale."<sup>62</sup> To him, it was clear that the United States need-ed detailed and "moment by moment knowledge" of civilian and military air activity.<sup>63</sup> Strategic air warfare could not be planned for nor executed without a continuous flow of detailed air-centric intelligence.<sup>64</sup> While military intelligence consists of evaluated and interpreted information of military significance, air intelligence consists of military intelligence specifically required to employ airpower.<sup>65</sup> This specialized subset of military intelligence proved critical for the execution of modern warfare.

General Arnold's argument that past intelligence operations failed to meet the demands of air warfare parallels the modern disconnect between intelligence training and space warfare. Air intelligence played a pivotal role in the air battles of World War II, as the nation fought in a new domain. As the United States again finds itself operating in unknown territory, recently graduated intelligence guardians are responsible for providing intelligence with strategic-level implications—beyond what is primarily taught at a tactically focused Air Force technical school. Space operations span global satellite communications, missile warning, and precision, navigation, and timing, to name only a few mission areas. These operations are critical to America's ability to conduct global joint operations. The Space Force must provide its newest members with the skills and training to accomplish the mission expected of them. As demonstrated by the Army Air Corps, the Space Force should foster its own organic domain expertise. This begins in initial skills training—before conflict forces America's hand as the World Wars did, with air intelligence.

### Lessons from the Marine Corps

The U.S. Marine Corps strips away any semblance of civilian identity at its initial training courses and builds a Service-specific identity unique only to Marines.<sup>66</sup> In its seminal doctrine publication, *Warfighting*, Marine Corps Doctrinal Publication 1, the Marine Corps reveals that "all officers and enlisted Marines undergo similar entry-level training which is, in effect, a socialization process."<sup>67</sup> Initial training provides all Marines with a "common experience, proud heritage, a set of values, and a common bond of comradeship."<sup>68</sup> This common experience is the essential first step in creating a Marine.<sup>69</sup> The Space Force would benefit from taking a similar approach to its initial training courses, bringing intelligence members to Vandenberg SFB and training them alongside space operators. The consolidation of space and intelligence training is vital to building a common experience for guardians, with future consolidation expanded to include all space career fields.

Marine Corps officers all attend The Basic School (TBS), a six-month course for newly commissioned lieutenants and warrant officers.<sup>70</sup> The material that young officers are exposed to during TBS is intended to "stay with them" for the entirety of their careers.<sup>71</sup> It instills in every officer a fundamental understanding of how the Marine Corps operates, giving graduates a "basic level of tactical competencies."<sup>72</sup> These universal competencies allow every officer to lead a rifle platoon, regardless of military occupational specialty.<sup>73</sup> While guardians require training that is very different from a Marine's "tactical competencies," there is incredible value in setting a training baseline for space "tactical competencies."<sup>74</sup> These would apply to all Space Force members at entry into the Service. Every guardian should have a basic understanding of what it means to operate and fight in space. Space operators are by no means the only guardians who should study launch operations, orbital regimes, and blue force space capabilities—to name only a few foundational space concepts. The new SIF course provides a temporary means for instilling space fundamentals in intelligence guardians, but the long-term answer is ultimately a Space Force training pipeline separate from the Air Force schoolhouse. The enduring success of the Service depends on synergy across all career fields. Intelligence members must understand the space domain to provide relevant intelligence necessary for space operations.

A final Marine Corps lesson the Space Force should adopt is the persistent promotion of teamwork. Enlisted and officer training teaches Marines that "they have left a culture of self-gratification" in favor of a culture of "selfdiscipline and a focus on the group."<sup>75</sup> *The Guardian Ideal* already calls for the development of a team-centric culture.<sup>76</sup> Crew dynamics drive every Space Force operation. Unlike Air Force culture, with single pilots flying and fighting at its core, Space Force operations will fail or succeed based on the performance of its teams, not individuals. IST, whether it is executed by the Air Force or Space Force, reflects and reinforces this key difference in Service cultures. Thus, guardians should train how they fight—fully immersed in the space domain and integrated into teams (i.e., crews) that include both space and intelligence professionals.

Both of these case studies offer valuable lessons as the Space Force seeks to refine its initial intelligence training. First is the example of the Army Air Corps, with the genesis of its air intelligence expertise. The Army Air Corps recognized the need for domain-specific intelligence, which enabled America's ability to fight in an unfamiliar war domain. Next, the example of the Marine Corps' Service-specific culture and identity, built at the outset of training for all Marines, aligns closely with Schein's advocacy of shared experience and cultural DNA. This model showcases how guardians can perhaps best foster a unique "space-mindedness" in its newest recruits. The Space Force can and should look to the history and successes of other military branches to inform the professional development of its intelligence personnel.

### **Conclusion and Recommendations**

Culture takes time to evolve naturally, but a holistic and inclusive guardian culture will not fully develop unless the Space Force separates its IST from the Air Force. In the Air Force, airmen attend various technical schools based on career discipline. However, pilots attend their initial training together (allowing for a common airmanship baseline prior to airframe specialization). With a Service built on support to pilots, this initial skills training construct works. In the Space Force, though, guardians from all career fields ultimately execute operations together as a crew. Therefore, it is imperative that trainees come together as early as possible in their careers to establish a common guardian baseline.

Schein's work on shared learning, internal integration, and cultural DNA offers the strongest argument for why initial skills training must transition from the Air Force to Space Force. This change allows for a much-needed common experience, laying a cultural foundation from the outset of a member's introduction to military service. Merging this analysis with the research conducted on the Army Air Corps and Marine Corps offers further evidence for establishing space-centric intelligence training.

Historical analysis of the birth of air intelligence showcases the inherent value of a specialized approach to military intelligence in direct support of air warfare. The current Air Force curriculum provides an indispensable analytic backbone but fails to provide guardians with a much-needed space foundation—ultimately resulting in a lack of space-mindedness for the Service's newest intelligence members.

The Space Force must take ownership of its intelligence IST. The Service should introduce officer and enlisted trainees to their chosen domain immediately after entry into their career field specific training. While initial skills training must impart the foundational analytic skills that all members of the intelligence community require, the Space Force must also provide what no other training entity can—a foundation in space warfighting.

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- 11. Edgar H. Schein, *Organizational Culture and Leadership* (Hoboken, NJ: John Wiley & Sons, 2017), 18. Note: Edgar Schein defines three levels of culture: artifacts, espoused beliefs and values, and basic underlying assumptions. As the Space Force is in its infancy, this framework was only partially applicable. Specifically, artifacts are readily visible, but the other cultural levels are still in development. Therefore, Schein's definition for organizational culture, as opposed to the three-level framework, was appropriate for the analysis reflected in this article.
- 12. Schein, Organizational Culture and Leadership, 6.
- 13. Schein, Organizational Culture and Leadership, 6.
- 14. Schein, Organizational Culture and Leadership, 6.
- 15. Schein, Organizational Culture and Leadership, 29.
- 16. Space Capstone Publication—Spacepower: Doctrine for Space Forces (Washington, DC: Department of Defense, 2020), xii.
- 17. Space Capstone Publication—Spacepower, xiii.
- 18. Space Capstone Publication—Spacepower, xiii.
- 19. Space Training and Readiness Command: Commander's Strategic Intent (Peterson AFB, CO: STARCOM Headquarters, 2021), 2.
- 20. Schein, Organizational Culture and Leadership, 6.
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- 21. Schein, Organizational Culture and Leadership, 6.
- 22. Schein, Organizational Culture and Leadership, 6.
- 23. Schein, Organizational Culture and Leadership, 7.
- 24. Schein, Organizational Culture and Leadership, 12.
- 25. Schein, Organizational Culture and Leadership, 8.
- 26. Schein, Organizational Culture and Leadership, 7.
- 27. Schein, Organizational Culture and Leadership, 7.
- 28. The Guardian Ideal (Washington, DC: Department of Defense, 2021), 2.
- 29. The Guardian Ideal, 2.
- 30. The Guardian Ideal, 3.
- 31. *The Guardian Ideal*, 3.
- Peter Garretson, "Space Force's Jupiter-Sized Culture Problem," War on the Rocks, 11 July 2019.
- Peter R. Mansoor and Williamson Murray, eds., *The Culture of Military Organiza*tions (Cambridge, UK: Cambridge University Press, 2019), 14, https://doi.org/10 .1017/9781108622752.
- 34. Schein, Organizational Culture and Leadership, 14.
- 35. Schein, Organizational Culture and Leadership, 12.
- 36. Mansoor and Murray, *The Culture of Military Organizations*, 14.
- 37. 2022 Challenges to Security in Space: Space Reliance in an Era of Competition and Expansion (Washington, DC: Defense Intelligence Agency, 2022), iv.
- MajGen Gregory J. Gagnon, deputy chief of space operations for intelligence (S2), USSF Staff, memorandum, subject: Guidance Memorandum One, 19 December 2022, 1, hereafter Guidance Memorandum 1.
- 39. Guidance Memorandum 1, 1.
- 40. Guidance Memorandum 1, 1.
- 41. Guidance Memorandum 1, 1.
- 42. Guidance Memorandum 1, 1.
- 43. STARCOM intelligence chief (STARCOM HQ S2/3I), email to the author, 14 February 2023, hereafter STARCOM email. Note: STARCOM is also working to establish a similar course at Keesler AFB for Space Cyber Fundamentals.
- 44. STARCOM email.
- 45. STARCOM email.
- 46. Detachment chief email.
- 47. Detachment chief email.
- 48. Space Capstone Publication, Spacepower, vi.
- 49. "Intelligence," in CSC-12 (Maxwell AFB, AL: Air University, 1961), 3.
- 50. "Intelligence," 3.
- 51. "Intelligence," 3.
- 52. "Intelligence," 4.
- 53. "Intelligence," 4.
- Air University Air Command and Staff College, "Air Intelligence," in AC&SS Pamphlet, no. 26 (Maxwell AFB, AL: Air University, 1950), 2-1.
- 55. Air University Air Command and Staff College, "Air Intelligence," 1-1.
- 56. "Intelligence," 4.
- 57. "Intelligence," 6.
- 58. "Intelligence," 8.
- 59. LtGen Henry H. Arnold and MajGen Ira C. Eaker, *Army Flyer* (New York: Harper & Brothers Publishing, 1942), 260–61.
- 60. "Intelligence Training Programs: Instructional Outline," in *ST A-35* (Harrisburg, PA: Army Air Forces Air Intelligence School, 1943), 7.
- 61. "Intelligence," 4.
- 62. "Air Intelligence," in AC&SS Pamphlet, 1-1.
- 63. "Air Intelligence," in AC&SS Pamphlet, 1-1.
- 64. "Air Intelligence," in AC&SS Pamphlet, 1-1.
- 65. "Air Intelligence," in AC&SS Pamphlet, 1-1.

- 66. Jeannie L. Johnson, *The Marines, Counterinsurgency, and Strategic Culture: Lessons Learned and Lost in America's Wars* (Washington, DC: Georgetown University Press, 2018), 62.
- 67. *Warfighting*, Marine Corps Doctrinal Publication 1 (Washington, DC: Headquarters Marine Corps, 1997), 59.
- 68. Johnson, The Marines, Counterinsurgency, and Strategic Culture, 62.
- 69. Johnson, The Marines, Counterinsurgency, and Strategic Culture, 62.
- 70. "US Marine Corps: The Basic School (TBS)," Boot Camp and Military Fitness Institute, accessed 4 April 2023.
- 71. "The Basic School," USMC Officer, accessed 4 April 2023.
- 72. "The Basic School."
- 73. "The Basic School."
- 74. Further analysis is recommended to identify appropriate space "tactical competencies" applicable across all Space Force career fields.
- 75. Johnson, The Marines, Counterinsurgency, and Strategic Culture, 62.
- 76. The Guardian Ideal, 2.