DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES SPACE FORCE
WASHINGTON DC

SPFGM 2025-90-01
14 January 2025

MEMORANDUM FOR HQ USSF/FLDCOMs/DRUs

FROM: HQ USSF/S5/8
2020 Space Force Pentagon, Ste 4E114
Washington, D.C. 20330-2020

SUBJECT: Space Force Guidance Memorandum 2025-90-01, *Force Design & Force Development Processes*

1. By Order of the Secretary of the Air Force, this Space Force Guidance Memorandum (SPFGM) is the first instance of a to-be published SF/CSRO Space Force Instruction (SPFI). This Memorandum implements Air Force Policy Directive 10-6, *Capability Requirements Development, and Department of the Air Force Policy Directive* (DAFPD) 10-2, *Readiness and the Memorandum from Secretary of Defense to Senior Pentagon Leadership et al., subject: Designation of the Force Design Architect for Space Systems of the Armed Forces (Aug. 17, 2022)*. This Memorandum establishes organizational responsibilities, authorities, and processes for the management of United States Space Force (USSF) Force Design and Development processes. To the extent its directions are inconsistent with other Department of the Air Force (DAF) publications, the guidance herein prevails, in accordance with (IAW) DAF Instruction (DAFI) 90-160 *Publications and Forms Management and Department of the Air Force Manual* 90-161, *Publishing Processes and Procedures*.

2. COMPLIANCE: Compliance with this publication is mandatory.

3. ACCESSIBILITY: The publication is available for downloading or ordering on the e-Publishing website at www.e-Publishing.af.mil.

4. RELEASABILITY: There are no releasability restrictions on this publication.

5. APPLICABILITY: This publication applies to all uniformed members and civilian employees of the USSF and those with a contractual obligation to abide by the terms of DAF publications except where otherwise noted. This publication does not apply to the United States Air Force.

6. This publication requires the collection and/or maintenance of information protected by the Privacy Act of 1974, authorized by Title 10 United States Code Section 9013, Secretary of the Air Force (SECAF). Ensure all records generated as a result of adhere to Air Force Instruction (AFI) 33-322, *Records Management and Information Governance Program*, and are disposed of in accordance with the Air Force (AF) Records Disposition Schedule, which is located in the Air Force Records Information Management System.

7. This memorandum becomes void after one year has elapsed from the date of this memorandum, or upon publishing of a new publication permanently establishing this guidance, whichever is earlier.

SHAWN N. BRATTON
Lieutenant General, USSF
Chief Strategy and Resourcing Officer

Attachment:
SPFGM2025-90-01

Force Design and Force Development Processes

1. Overview.

1.1. Purpose. This publication establishes guidance and procedures for the Headquarters (HQ) Space Staff, Field Commands (FLDCOM), and Direct Reporting Units (DRU) on how to manage and execute the USSF's force design and force development processes and support the Chief of Space Operations (CSO) in the statutory role as force design architect for space systems of the Armed Forces. For the purposes of this SPFGM, the term management includes coordinating during process execution and integrating with the following existing processes: requirements generation and prioritization (Joint Capabilities Integration and Development System (JCIDS) and other USSF capability requirements processes); strategy, planning, programming, budgeting, execution (SPPBE); acquisition and sustainment (Adaptive Acquisition Framework (AAF)); and systems acceptance of capabilities. Because the responsibilities and authorities for each of these separate and parallel processes are distributed across multiple HQ Elements and FLDCOMs, deliberate collaboration and unity of effort is required to develop, maintain, and apply the desired force design and force development products. This SPFGM is intended to guide collaboration by establishing organizational roles, responsibilities, authorities, and general governance activities for the management and execution of the force design and force development processes.

1.2. Description. Force design and force development are two of the three phases (force employment being the third) that make up the ecosystem that envisions and ultimately fields future space forces. Focused on the 5-15-year time horizon, force design is a continual and iterative process that analyzes, assesses, and recommends what capabilities and force structure the Joint Force should develop and procure. Force development provides the mechanism for adapting current functions, capabilities, and concepts to improve future joint force effectiveness in achieving national strategic objectives in accordance with NDS prioritization. USSF works to achieve the objective force through the planning, resourcing, procurement, prototyping, demonstration, and testing of future capabilities and associated force structure (people, tactics, training, facilities, etc.) across a 2-7-year time horizon, adapting to unexpected challenges as-needed. Force employment (0-3 years) then plans, manages, and fields the force required to fulfill national defense objectives and serve United States (U.S.) national interests.

1.3. Scope. As described by Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3030.01A, and expanded upon in this document, the force design and force development processes provide a coherent mechanism to synchronize existing and future mission areas to envision, develop, and meet projected warfighting needs. Both are informed by U.S., ally, partner, commercial requirements to counter adversary capabilities while being based on realistic current and future budget profiles, technology readiness, threat projections, doctrine, national strategy, and operating concepts, as well as partnership opportunities with allies, partners and commercial entities.

1.3.1. Force Design. Focused on the 5-15-year time horizon, force design is a continual and iterative process that analyzes, assesses, and recommends what capabilities and force structure

the Joint Force should develop and procure through the incorporation of concepts and technologies through experimentation, analysis, and wargames to envision the objective force.

1.3.2. Objective Force. Describes the force the Service believes it will need to fight and win future battles based on strategy, future operating concepts, future and current requirements, anticipated threats, technologies, and the geopolitical environment. It is the output of the force design process focused on a defined time span (e.g., 2025-2040) that is continually iterated as input variables change. It is also a resource informed (DOTmLPF-P) product conceptually identifying the units, formations, and equipment required to ensure space superiority and deliver effects to the Joint fight. It illustrates a possible end with 5-year force delivery checkpoints with finer near-term clarity that enables planners and programmers to envision, invest in, and develop capabilities, technologies, and material and non-material means but is also flexible to changes as learning occurs.

1.3.3. Force Development. Force development provides the mechanism for adapting current functions, capabilities, and concepts to improve future joint force effectiveness in achieving national strategic objectives in accordance with NDS prioritization. USSF works to achieve the objective force through the planning, resourcing, procurement, prototyping, demonstration, and testing of future capabilities and associated force structure (people, tactics, training, facilities, etc.) across a 2-7-year time horizon, adapting to unexpected challenges as-needed.

1.3.4. Programmed Force. The programmed force consists of the capabilities, facilities, infrastructure, personnel, science and technology investments, etc. that have been allocated funding through the Planning, Programming, Budgeting, and Execution (PPBE) process over the course of the current Future Years Defense Program (FYDP). The programmed force describes the force which is planned to be fielded in the future. The difference between the objective force and the programmed force may manifest as future operational risk. Limited resources must be allocated in a manner that balances future operational risk against today's risks to the current force.

1.3.5. Fielded Force. The Fielded Force consists of capabilities, facilities, infrastructure, personnel, as currently constituted such as a Composite Force offering of combat squadrons.

1.4. Waiver Authority. The Chief Strategy and Resourcing Officer (CSRO) is the waiver authority for this SPFGM. Subordinate units and organizations will initiate waiver requests on an DAF Form 679, *Air Force Publication Compliance Item Waiver Request/Approval*. Submit requests via the Enterprise Task Management Software Solution to SF/S5B Workflow for coordination.

2. Force Design and Force Development Processes.

2.1. Force Design.

2.1.1. Purpose. Focused on the 5-15-year time horizon, force design is a continual and iterative process that analyzes, assesses, and recommends what capabilities and force structure

the Joint Force should develop and procure through the incorporation of concepts and technologies through experimentation, analysis, and wargames to envision the objective force. Through process execution, USSF considers all mission areas and their interconnections, integration, standards and interoperability to enable the CSO to make informed recommendations about space systems investments and divestments that balance current and future capabilities.

2.1.2. Sequencing. This section describes the sequencing of the force design process to deliver the objective force. The Force Design Guidance, a strategic document, informs and prioritizes force design activities, which consist of Mission Area Design (MAD) and Enterprise Planning & Integration.

2.1.2.1. Force Design Guidance. Force design begins with the development of Force Design Guidance, which captures gaps in capabilities to drive and prioritize individual mission area analyses. The products of these analyses are ultimately integrated across all mission areas to form the enterprise-wide objective force. Force Design Guidance drives the force design process by articulating the concepts, themes, and attributes the objective force must address to resolve pressing challenges the Joint Force may face in the future and is revalidated annually and updated as needed to account for strategic changes. Additionally, Force Design Guidance consolidates and synthesizes inputs from strategic guidance, validated and approved concepts with associated Concept Required Capabilities, Combatant Command Integrated Priority Lists (IPL), international and commercial partnership opportunities, and other service priorities to guide objective force development. Force Design Guidance also defines the prioritization of mission area design analyses and any special enterprise planning and integration considerations consistent with the CSO's vision.

2.1.2.2. Mission Area Design. MAD integrates selected Leading Candidate Solutions (LCSs) within each mission area. It provides an integrated look within a mission area to ensure individual capabilities are balanced to meet future threat environments and presents a spectrum of options for planning choices. MAD recommendations include the proposed balance of architecture phenomenology necessary for each LCS to support the future operating environment, through Capability Area Designs (CAD) and associated Capability Enabling Designs (CED), which are described separately below. The combination of information found in a CAD and CED provides the bulk of information needed in a Capabilities Based Assessment and Initial Capabilities Document. In some instances, the analysis which led to the LCSs will also serve as the analysis of alternatives for acquisitions programs.

2.1.2.2.1. Capability Area Design. For each mission area prioritized by the Force Design Guidance, a CAD is completed that documents the trade space exploration, modeling, simulation, & analysis (MS&A) and wargaming used to evaluate each solution's cost, performance, relevance, and resilience. CAD analysis generates multiple candidate architectures, identifying several LCSs that articulate differing levels of performance, resilience and cost against joint requirements and value to competitive endurance. LCSs developed through design trades also consider collaboration with allies and partners as well as utilization of projected commercial services to fulfill performance objectives.

2.1.2.2.2. Capability Enabling Design. Each LCS developed during CAD undergoes CED. CED documents the doctrine, organization, training, materiel, leadership & education, personnel, facilities, and policy (DOTmLPF-P) analysis, implications, and interdependencies for the LCS produced during the CAD phase. In some instances, a CED will inform the creation of a DOTmLPF-P Change Recommendation (DCR). Analysis is performed and matures in concert with the MS&A required to develop the LCS. The CED phase results in resource loaded LCS based on mission area. It uses the existing force structure and force posture as a point of departure to consider a multitude of diverse needs such as manpower, organizational structure, basing infrastructure, training capabilities, test and evaluation capabilities, policy changes, shared ground infrastructure, and launch. As CED analysis is conducted, feedback on aspects of the LCS that drive excessive or improbable DOTmLPF-P changes are fed into the CAD process for iterative refinement of the LCS.

2.1.2.3. Enterprise Planning & Integration. The Enterprise Planning & Integration phase ensures horizontal integration across all mission areas and culminates with the creation or revision of the objective force. Running nearly concurrently with MAD, this phase looks across mission areas to understand investment and divestment opportunities, determining initial funding profiles that serve as inputs for follow-on processes. This phase also analyzes and assesses the impacts any updated MAD has on the others to determine and recommend modifications needed to ensure synchronization and the closure of kill-chains. Certification during this stage is the act of ensuring recommended changes are relevant to the need and time epoch, achievable within resource constraints, and synchronized across all mission areas. Certified MAD recommendations drive objective force updates. The planned resourcing of certified MADs is captured in the Resource Allocation Plan (RAP) and stored in the PPBE Planning database of record. The RAP Consists of a 10-year projection of costs beginning in the first year after the FYDP ends. For example, if the FYDP is FY27-31, the RAP will cover FY32-FY41. The RAP communicates commitment to the missions, formations, and activities that the USSF intends to pursue. This provides a starting point for understanding essential long-term activities, spanning technology maturation, acquisition timelines and long-term DOTmLPF-P changes.

2.2. Force Development.

2.2.1. Purpose. The force development process provides overarching planning and priorities for resourcing, procurement, prototyping, demonstration, and testing of future capabilities and associated force structure necessary to achieve the objective force while balancing the sustainment of the Fielded Force. Force development executes via four (4) lines of effort (LOE). These LOEs occur continuously and concurrently. They are influenced by the objective force and Mission Area Development Plans (MADP) that inform annual modifications to the programmed force to better achieve the objective force.

2.2.2. LOE 1: Planning and Monitoring. LOE 1 creates and maintains MADPs to track, monitor, and provide status of the attainment of the objective force. LOE 1 also informs the three subsequent force development LOEs of the priorities for capability development within a mission area and support decision-making for annual modifications to the programmed

force. Additionally, LOE 1 receives status updates and inputs from the subsequent LOEs that drive updates to the MADPs.

2.2.3. LOE 2: Requirements, Acquisitions, and DOTmLPF-P. LOE 2 executes actions that lead to fielding individual capabilities driven by the objective force: establishing requirements; acquiring systems; ensuring supporting DOTmLPF-P requirements are satisfied; and executing programs and contracts to deliver capabilities enabling the presentation of a ready force. This LOE includes the acceptance and integration of private sector, Allied, and Partner nation services, capabilities, and activities that are not programs of record. For more details reference SPFGM 10-601, Department of Defense (DoD) Instruction (DoDI) 5000.02, DAFI 63-101/20-101, and Space Force Instruction (SpFI) 13-604.

2.2.4. LOE 3: Planning, Programming, Budgeting, and Execution. LOE 3 annually updates the programmed force to allocate resources in a manner that balances future operational capability and the current needs of the Service. See Department of Defense Directive (DoDD) 7045.14 and the DAF PPBE Reference Manual for further details.

2.2.5. LOE 4: Science and Technology. LOE 4 identifies the objective force's Science and Technology (S&T) needs, then establishes priorities for basic research, applied research and advanced technology development to support those S&T needs and identifies any opportunities presented by emerging technologies. See AFI 61-101 and Space Combat Technology Development Process Handbook for additional details.

3. Force Design and Force Development Oversight and Management.

3.1. Purpose. This chapter describes how the force design and force development processes will be managed. A Steering Committee and multiple Mission Area Working Groups (MAWG) will be established to synchronize the force design, development, and employment processes, while also enabling integration efforts across the Joint community. These forums assure maximum cross-organizational collaboration at the earliest opportunity to heighten flexibility and to increase the range of options afforded to senior leaders for planning choices.

3.2. Steering Committee. The Steering Committee is the primary HQ O-6 (or equivalent) coordination forum that convenes quarterly and as needed to collaborate with and facilitate support from represented organizations on tasks and matters pertaining to the force design, development, and employment processes. While not a decision-making body, it does aim to resolve challenges at the lowest level possible through coordination and consensus and serves as the primary conduit through which Combat Forces Command (CFC) conveys proponency perspectives. Any matters requiring elevation may be referred to an L2 Council. The Steering Committee is comprised of the O-6 (or equivalent) MAWG leads, SAF/SQ, and additional representatives from each FLDCOM and DRU, as necessary. In addition, the Steering Committee supports the following activities:

3.2.1. Informing Force Design Guidance drafting and analytical priority determination to ensure alignment with future needs, the future operating environment, and national defense strategies and planning guidance.

3.2.2. Reviewing the integrated MADs to identify unidentified risks, conflicts, and opportunities, recommending revisions as necessary.

3.2.3. Recommending changes to MADPs based on unanticipated events during force development/employment or the issuance of changes to the objective force.

3.2.4. Establishing new Mission Area Working Groups, as necessary.

3.3. Mission Area Working Groups. A MAWG is an enduring interdisciplinary focus group of action officers from USSF stakeholder organizations within a specific mission area to support core force design, development, and employment processes to ensure fielding of resilient, ready, and fully burdened combat-credible forces. MAWGs transcend vertical organizational boundaries and are purposefully untethered from any single FLDCOM as they simultaneously provide support to multiple processes and Offices of Primary Responsibility (OPRs) and produce enhanced unity of effort across the service supporting interoperability and a clear entry point for Joint and allied stakeholders.

3.3.1. Each MAWG is led by a O-6/GS-15 and includes representation from, but not limited to, acquisitions, training, test, operations, sustainment, facilities, manpower, quality of life, resourcing, requirements, partnerships, policy, doctrine, and S&T stakeholders at the action officer-level. External participants (other Services, Allies, Partners, etc.) may be included as necessary. MAWG leads may reside in any organization but will be appointed by the CSRO.

3.3.2. During force design, MAWGs support the process by providing relevant inputs, reach back, reviews, and feedback during MAD development and the refinement of planning choices during Enterprise Planning & Integration. MAWGs enable subject matter expertise from across the USSF and the Armed Forces to support MAD creation, which is a highly inter-disciplinary activity. Additionally, by bridging force design and development, MAWGs ensure future iterations of the objective force remain consistent with progress towards the current objective force.

3.3.3. During force development and employment, MAWGs support the updating and maintaining of MADPs based on inputs such as changes to the objective force, available resources, and/or Program of Record execution status. They act as a body of corporate knowledge for each mission area, and align the requirements, acquisitions, and resourcing processes by providing a common source of information. MAWGs also collect status to maintain an accurate overall picture of their respective mission areas and elevate any concerns to the Steering Committee. This includes interfacing with the CFC Functional Integration Cells and the Weapon Systems Readiness Review to collect force employment matters that also impact force development. Additionally, each MAWG provides the Steering Committee with inputs for the annual space systems capability development report, highlighting USSF and other Service efforts and the associated relevance to achievement of the objective force.

3.4. Joint Integration. Joint integration occurs at multiple points during the force design and force development processes.

3.4.1. During force design, USSF stakeholders consult Joint stakeholders on requirements, future operating concepts, and service strategy as inputs to developing the Force Design Guidance. Prior to publication, the Force Design Guidance will be socialized with O-6 and General Officer / Flag Officer (GO/FO) Functional Capabilities Board (FCB) Integration Groups as documented in Chairman Joint Chief of Staff Instruction (CJCSI) 5123.01I. During MAD, Joint stakeholders are encouraged to engage with analysis teams to inform LCS development. Analysis teams notify relevant stakeholders of these interactions to include the appropriate MAWG(s). Lastly prior to LCS down-selection, relevant MADs will be socialized with the O-6 and GO/FO FCB Integration Groups for feedback. These Integration Groups provide all the FCBs and Services' awareness of the USSF's force design approach for space capabilities.

3.4.2. During force development, Joint integration occurs during requirements development and MADP updates. Requirements that are derived from the objective force will be informed by Joint stakeholder input. Also, Joint stakeholders will be informed of updates to MADPs to align resourcing plans based on space architecture updates.

4. Essential Products. The force design and force development processes produce many organic products and facilitate the creation of other complementary products through other processes (e.g., Concept of Operations (CONOPS) and Concept of Employment (CONEMP)). These products will be widely disseminated by the MAWGs and will be available for any USSF member with the appropriate clearances.

4.1. Force Design Products. The output of the force design process is the objective force, which is comprised of multiple MADs. Each MAD establishes what a particular mission area needs to be successful in the anticipated future operating environment. MADs can be further decomposed into one or more LCS that define the needs of a specific architecture within the mission area (e.g., the narrowband communications architecture within the Satellite Communications (SATCOM) mission area). LCSs consist of a CAD and a CED. CADs define the materiel aspects of the LCS architecture, while CEDs capture the force structure (i.e., DOTmLPF-P needs) needed to support operations. The force design process also influences the RAP which articulates the predicted affordability and resourcing priority of the MADs.

4.2. Force Development Products. The key outputs of the force development process are the MADP, and recommended investment and divestment priorities contained in the RAP and reflected in the Program Objective Memorandum (POM). The RAP is a continuously updated resourcing outlook that determines the priorities of investment toward the objective force and informs Force Development resourcing and the POM. MADPs capture the latest status for a specific mission area and high-level roadmaps for each capability within the mission area, defining timelines for transitioning to new architectures. MADPs also show development and fielding timelines for each solution needed to implement the new architecture. Updates to the MADPs can be driven by top-down direction as well as significant status updates from the force development LOEs, the release of a new objective force, changes to strategic guidance, significant baseline and scheduling deviations, and emerging threats/technologies. If any

changes result in a deviation from the objective force, the MADP documents the deviation's assessed impacts on future capabilities.

5. Roles and Responsibilities.

5.1. Chief of Space Operations (CSO).

5.1.1. Approves the objective force and any additions, removals, and modifications, as applicable.

5.1.2. Sets USSF policies and strategic goals for force structure, modernization, and capability development for all space-mission capabilities that generate effects in, from, and through space supporting requirements of the Joint Force.

5.1.3. Approves the Force Design Guidance.

5.1.4. In the capacity of the force design architect for space systems of the Armed Forces (see para 6), delivers an annual report on space system capability development to the Secretary of Defense (SecDef).

5.2. The Assistant Secretary of the Air Force for Space Acquisition and Integration (SAF/SQ).

5.2.1. Provides relevant strategic guidance in support of Force Design Guidance development (IAW Headquarters Air Force Mission Directive (HAFMD)1-17 para 3.4.4).

5.2.2. Provides international/commercial capabilities and partnership opportunities in support of Force Design Guidance development (IAW HAFMD1-17 para 3.1.1).

5.2.3. Supports S&T prioritization (IAW HAFMD1-17 para 3.2.1).

5.2.4. Assesses the objective force to ensure its Materiel aspects and S&T needs are realistic and achievable (IAW HAFMD1-17 para 3.1.2).

5.2.5. Supports CSRO and Acquisition Organizations, as required, in developing and updating the RAP.

5.2.6. Reviews MADPs to ensure they reflect the latest status of on-going S&T and acquisitions-related development efforts, providing updates as needed (IAW HAFMD1-17 para 3.4.3).

5.2.7. Initiates Program Executive Office (PEO) portfolio assignment for each LCS (IAW HAFMD1-17 para 3.12).

5.2.8. Monitors requirements, interfaces, and mission threads that span PEOs, identifying any issues through participation in MAWGs (IAW HAFMD1-17 para 3.1).

5.2.9. Monitor and report annually to CSO and SECAF on progress toward attainment of the Objective Force.

5.2.10. Supports other force design and force development activities and forums, as necessary (IAW HAFMD1-17 para 3.1).

5.3. HQ USSF/S1 (Chief Human Capital Officer).

5.3.1. Provides long-term manpower projections for Force Design Guidance development to ensure the objective force is resource informed.

5.3.2. Provides assessments of personnel requirements and projections to support CED analysis and to inform LCS recommendations and integration into MADs.

5.3.3. Supports enterprise planning and integration, by providing estimated manpower needs for the RAP, ensuring they are achievable for each MAD and the overall objective force.

5.3.4. Reviews and develops recommended updates to Guardian development plans within MADPs to ensure the roadmap for manpower is executable.

5.3.5. Supports other force design and force development activities and forums, as necessary.

5.4. HQ USSF/S2.

5.4.1. Provides intelligence and projections of adversary, ally, partner, and commercial capabilities, as able, to inform the development of the future operating environment and the Force Design Guidance to include consolidating intelligence-related strategic guidance.

5.4.2. Provides digital models of threat systems to inform mission area design.

5.4.3. Assesses the objective force to ensure that it addresses projected threats.

5.4.4. Supports other force design and force development activities and forums, as necessary.

5.5. HQ USSF/S3/4/7/10 (COO).

5.5.1. Provides relevant strategic guidance, including guidance related to operations and logistics, in support of Force Design Guidance development.

5.5.2. Provides estimates of sustainment-related resource projections for each mission area for incorporation into the Force Design Guidance.

5.5.3. Provides estimates of relevant DOTmLPF-P requirements and projections to support CED analysis and to inform LCS recommendations and integration into MADs.

5.5.4. Supports enterprise planning and integration, by providing sustainment needs for the RAP, ensuring they are achievable for each MAD and the overall objective force.

5.5.5. Assesses the objective force to ensure the various capabilities that it identifies as well as the associated force structure and sustainment requirements are purpose built, realistic, and achievable.

5.5.6. Reviews and develops recommended updates to relevant DOTmLPF-P plans within MADPs to ensure they document how all DOTmLPF-P needs will be satisfied at the time various capabilities are needed to be Operationally Accepted.

5.5.7. Supports other force design and force development activities and forums, as necessary.

5.6. HQ USSF/S5/8 (CSRO).

5.6.1. As appointed by CSO, ensures execution of the force design process and the generation, maintenance, and approval of the objective force.

5.6.2. Obtains future needs of CCMDs and Services and consolidates national, DoD, and Service-level strategic guidance to develop Force Design Guidance for CSO approval.

5.6.3. Develops resource projection estimates for each mission area and identifies partnership opportunities with commercial entities, allies, and partners as inputs to the Force Design Guidance.

5.6.4. Certifies MAD recommendations.

5.6.5. Conducts enterprise planning and integration, combining MADs into the objective force and identifying dependencies while eliminating redundancies across mission areas.

5.6.6. Creates and maintains MADPs, such that they continuously incorporate new objective force updates and the status of development efforts across the USSF to inform priorities and decision-making.

5.6.7. Reviews and develops recommended updates to requirements documentation development plans within MADPs to ensure they capture objective force requirements on timelines to support the initiation of force development activities, such as system acquisitions.

5.6.8. Coordinates force design and force development products with Joint FCBs, as necessary.

5.6.9. Develops and updates RAPs.

5.6.10. Develops and updates requirement documents to support force design and development efforts.

5.6.11. Generates an annual report on space system capabilities for the CSO.

5.6.12. Supports other force design and force development activities and forums, as necessary.

5.7. HQ USSF/S6.

5.7.1. Provides cyber, SATCOM, and Electro-Magnetic Spectrum (EMS) requirements and projections to support CED analysis and to inform LCS recommendations and integration into MADs.

5.7.2. Reviews MADPs to incorporate timelines / actions needed to receive authorization to test / operate any applicable systems.

5.7.3. Provides impacts to ground infrastructure and networks (e.g. capacity, latency, processing) to ensure mission equipment and networks can accommodate the additional demand/load from MADs.

5.7.4. Supports other force design and force development activities and forums, as necessary.

5.7.5. Provides estimates of relevant DOTmLPF-P requirements and projections to support CED analysis and to inform LCS recommendations and integration into MADs.

5.7.6. Coordinates updates to MADPs to reflect changes in EMS, including cyberspace and SATCOM, and how these changes might impact development efforts.

5.7.7. Advises on prioritization of cyberspace, SATCOM, and EMS challenges during implementation.

5.7.8. Assesses the objective force to provide feedback on material changes and impacts in cyberspace, SATCOM, and the EMS.

5.8. AF/Director of Test and Evaluation.

5.8.1. Provides oversight, advocacy, resourcing of test capabilities, and requirements for future space test equities supporting the Space Test Enterprise, which includes the Integrated Test Force construct.

5.8.2. Recommends and ensures test professional development plans are included with FLDCOM strategies.

5.9. Space Futures Command *(upon establishment)***.**

5.9.1. Develops and provides validated future operating concepts and the future operating environment for incorporation into the Force Design Guidance.

5.9.2. Supports development of validated concept required capabilities to incorporate into Force Design Guidance.

5.9.3. Provides relevant strategic guidance, including guidance related to force design analysis, in support of Force Design Guidance development.

5.9.4. Develops research and analysis plans to execute the Force Design Guidance.

5.9.5. Performs MS&A to create CADs and CEDs that together define LCSs.

5.9.6. Generates optimized MADs based on identified recommend LCSs.

5.9.7. Provides the horizontally integrated strategic prioritization of USSF S&T Prioritizes S&T needs during enterprise planning and integration.

5.9.8. In support of RAP updates, provides cost estimates derived during MAD.

5.9.9. Assists the integration of MADs into the objective force, validating any dependencies between mission areas and preventing inadvertent impacts while streamlining redundancies.

5.9.10. Assesses the objective force's performance in various scenarios via wargaming and MS&A, ensuring the objective force fulfills the concepts and needs documented in the Force Design Guidance.

5.9.11. Conducts wargaming and other like activities in support of force design processes.

5.9.12. In coordination with HQ Staff, supports coordination of force design products to Joint Integration Group Forums.

5.9.13. Supports other force design and force development activities and forums, as necessary.

5.10. Space Operations Command / Combat Forces Command *(upon establishment).*

5.10.1. Provides relevant strategic guidance in support of Force Design Guidance development.

5.10.2. Supports MAD by providing any information needed beyond the Force Design Guidance.

5.10.3. Identifies DOTmLPF-P requirements that are needed to deliver combat credible force elements during MAD to inform LCS development and recommendation.

5.10.4. During RAP updates, provides resourcing estimates needed to field fully burdened capabilities.

5.10.5. Assists the integration of MADs into the objective force, validating any dependencies between mission areas and preventing inadvertent impacts while streamlining redundancies.

5.10.6. Assesses the objective force to ensure the various capabilities that it identifies as well as the associated force structure and sustainment requirements are realistic and achievable.

5.10.7. Reviews MADPs to ensure they reflect the latest status of on-going efforts to implement DOTmLPF-P changes needed to achieve the objective force, providing updates as needed.

5.10.8. Provides operational-related S&T needs in support of S&T prioritization.

5.10.9. Supports other force design and force development activities and forums, as necessary.

5.11. Space Training and Readiness Command.

5.11.1. Reviews the Force Design Guidance providing inputs as necessary.

5.11.2. Supports MAD by providing any information needed beyond the Force Design Guidance.

5.11.3. Estimates DOTmLPF-P impacts during MAD to inform LCS development and recommendation.

5.11.4. During RAP updates, provides resourcing estimates needed to field fully burdened capabilities.

5.11.5. Assesses the objective force to ensure the associated force structure is purpose built, realistic, and achievable.

5.11.6. Reviews MADPs to ensure they reflect the latest status of on-going efforts to implement DOTmLPF-P changes needed to achieve the objective force, providing updates as needed.

5.11.7. Support S&T requirements generation and prioritization from Operational, and Training and Readiness perspective.

5.11.8. Supports other force design and force development activities and forums, as necessary.

5.12. Other Armed Forces Service Representatives.

5.12.1. Supports MAD development and provides feedback during analysis phases, as necessary.

5.12.2. Estimates the DOTmLPF-P changes required to support the LCS as necessary.

5.12.3. Supports other force design and force development activities and forums, as necessary.

5.13. Acquisition Organizations (Space Systems Command, Space Development Agency, Space Rapid Capabilities Office, Air Force Rapid Capabilities Office).

5.13.1. Identifies applicable partnership opportunities with commercial entities, allies, and partners in support of Force Design Guidance.

5.13.2. Supports MAD by providing any information needed beyond the Force Design Guidance.

5.13.3. Provides digital models of systems as they evolve throughout the acquisitions process to inform MAD and assess progress towards achieving the current objective force.

5.13.4. Reviews estimated DOTmLPF-P requirements during MAD, ensuring they are consistent with the technical characteristics of the systems within each LCS to inform down-selection and integration.

5.13.5. Validate MAD cost assessment prior to RAP integration.

5.13.6. Provides acquisition-related S&T needs in support of S&T prioritization.

5.13.7. During RAP updates, provides estimates of the fully burdened resourcing need to field capabilities identified by the objective force.

5.13.8. Assesses the objective force to ensure its Materiel aspects and S&T needs are realistic and achievable.

5.13.9. Provides updates to MADPs to reflect the status of on-going acquisitions-related development efforts.

5.13.10. Supports other force design and force development activities and forums, as necessary.

5.14. Science & Technology Enterprise Organizations.

5.14.1. Coordinate S&T enterprise efforts for the USSF with Defense Advanced Research Projects Agency, Service Labs, Federally Funded Research and Development Centers, and University Affiliated Research Centers to address subsequent items in this section.

5.14.2. Provides applicable international/commercial capabilities and partnership opportunities in support of Force Design Guidance development.

5.14.3. Supports MAD by providing any information needed beyond the Force Design Guidance, such as early S&T considerations for LCS development.

5.14.4. Assesses the objective force to provide feedback on any S&T updates and prioritization needed for implementation.

5.14.5. Provides updates to MADPs to reflect the status of on-going S&T development efforts.

5.14.6. Supports other force design and force development activities and forums, as necessary.

6. The Force Design Architect for Space Systems of the Armed Forces.

6.1. Force Design Architect. On 17 August 2022, the SecDef designated the CSO as the force design architect for space systems of the Armed Forces *(henceforward referred to as the "Force Design Architect")*. The designation memorandum states, "the Chief of Space Operations, under the authority, direction, and control of the Secretary of the Air Force, will be responsible for presenting coordinated recommendations to the Secretary of Defense regarding space-mission force design options to satisfy the requirements of the Joint Force and the Armed Forces."

6.1.1. The fundamental shift of this designation is the identification of a single entity responsible for conducting and coordinating force design activities for space systems across the Armed Forces. These activities result in comprehensive capability, force posture, and force structure recommendations presented through the Secretary of the Air Force (SECAF) to the SecDef.

6.1.1.1. Space systems, in the context of the force design architect's responsibilities, refers to Armed Forces space segments (e.g., satellites, ground systems, infrastructure, and personnel) to include consideration of interfaces to U.S. and allied nation systems, end-user equipment, and capabilities delivered by commercial entities.

6.2. Force Design Architect Responsibilities. The CSO, as the force design architect, is responsible for defining and executing the force design process for the Armed Forces space systems. This includes defining the objective force for space systems and providing space system force design recommendations to the SECAF, and ultimately to the SecDef. The force design process must enhance space system development agility by reducing stovepipes and increasing decision velocity to outpace the threat.

6.2.1. In this role, in collaboration with Key Stakeholders, the CSO:

6.2.1.1. Collect, coordinate, and validate capability requirements related to space and associated ground systems.

6.2.1.2. Coordinate with stakeholders organizations during force design analysis to determine the most cost-efficient and military effective solutions to operational challenges.

6.2.1.3. Document operational concepts for space mission systems, outlining the context, missions, and objectives that guide force design activities.Make coordinated

recommendations on policies and strategic goals for force capabilities that generate effects in, form, and to space.

6.2.1.4. Produce an annual report on field forces responsible for conducting space missions identifying readiness levels, shortfalls, and opportunities related to mission success.

6.2.2. The annual report on the fielded force will include an assessment of programmed space capabilities to advise planning and budgeting decisions and inform Defense Planning Guidance. This appraisal will characterize challenges, opportunities, and risk to the Joint Force and make recommendations to address them.

6.2.3. The CSO will leverage existing process and for a (e.g. Deputy Management Action Group, Joint Requirements Oversight Council, etc.) across the Department of Defense to action these new responsibilities, building upon established relationships and forging new ones when prudent. The Headquarters Space Force Staff will also establish an office to serve as the primary interface between the CSO and the other services, the Joint Staff, and the Offices of the Secretary of Defense.

Attachment 1

Glossary of References and Supporting Information

References
PL 117-81 §1602(b)(4), *National Defense Authorization Act for Fiscal Year 2022*, 27 Dec 2021
DoDI 5000.02, *Operation of the Adaptive Acquisition Framework*, 8 June 2022
DoDD 7045.14, *The Planning, Programming, Budgeting, and Execution (PPBE) Process,* 29 Aug 2017
CJCSI 3030.01A, *Implementing Joint Force Development and Design,* 3 Oct 2022
CJCSI 3170.01, *Joint Capabilities Integration and Development System (JCIDS),* 19 January 2012
CJCSI 5123.01I, *Charter of the Joint Requirements Oversight Council and Implementation of the Joint Capabilities and Integration Development System,* 30 October 2021
JCIDS Manual, *Manual for the Operations of the Joint Capabilities Integration and Development System (JCIDS)*, 30 October2021
DAFPD 13-6, *Space Policy*, 5 December 2023
DAFI 63-101/20-101, *Integrated Life Cycle Management*, 23 October 2024
HAFMD 1-17, *Assistance Secretary of the Air Force (Space Acquisition and Integration)*, 30 September 2022
Memorandum for Senior Pentagon Leadership Defense Agency and DoD Field Activity Directors*, Designation of the Force Design Architect for Space Systems of the Armed Forces,* 17 August 2022
SpFI 13-604, *System Acceptance*, 30 August 2023

JROCM 046-23, *Joint Integrator for Space requirements*, 29 June 2023
CSO EXORD, *Optimizing the USSF for Great Power Competition*, 23 May 2024
Force Design Architect for Space Systems of the Armed Forces – A Framework for Designing Tomorrow's Force, October 2024
Memorandum for Director, Space Systems Integration Office, *Chief Space Systems Engineer and Director, Space Systems Integration Office (SSIO) Appointment*, 9 July 2024

Prescribed Forms
None

Adopted Forms
DAF Form 679, *Air Force Publication Compliance Item Waiver Request/Approval*

Abbreviations and Acronyms
AAF—Adaptive Acquistion Framework
AF—Air Force
AFI—Air Force Instruction
CAD—Capability Area Design
CED—Capability Enabling Design
CFC—Combat Forces Command
CJCSI—Chairman of the Joint Chiefs of Staff Instruction

CONEMP—Concept of Employment
CONOPS—Concept of Operations
COO—Chief Operations Officer
CSO—Chief of Space Operations
CSRO—Chief Strategy and Resourcing Officer
DAF—Department of the Air Force
DAFI—Department of the Air Force Instruction
DAFPD—Department of Air Force Policy Directive
DCR– DOTmLPF-P Change Request
DoD—Department of Defense
DoDD—Department of Defense Directive
DoDI—Department of Defense Instruction
DOTmLPF-P – Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, Facilities, and Policy
DRU—Direct Reporting Units
EMS—Electro-Magnetic Spectrum
FCB—Functional Capability Boards
FLDCOM—Field Command
FYDP—Future Years Defense Program
GO/FO—General Officer/Flag Officer
HAFMD—Headquarters Air Force Mission Directive
HQ—Headquarters
IAW—In Accordance With
IPL—Integrated Priority List
JCIDS—Joint Capabilities Integration and Development System
LCS—Leading Candidate Solution
LOE—Line of Effort
MAD—Mission Area Design
MADP—Mission Area Development Plan
MAWG—Mission Area Working Group
MS&A—Modeling, Simulation, & Analysis
OPR— Office of Primary Responsibility
PEO—Program Executive Office
POM—Program Objective Memorandum
PPBE—Planning, Programming, Budgeting, and Execution
RAP—Resource Allocation Plan
SATCOM—Satellite Communications
SECAF—Secretary of the Air Force
SecDef—Secretary of Defense
SFC—Space Futures Command
SPFGM—Space Force Guidance Memorandum
SPPBE—Strategy, Planning, Programming, Budgeting, and Execution
S&T—Science & Technology
U.S.—United States
USSF—United States Space Force

Terms

Capability Area Design—attributes of an optimized materiel solution generated through high fidelity analysis of a mission area, based on concepts, and informed by available resources. Example: Government Reference Architecture for Proliferated Missile Warning.

Capability Enabling Design—attributes across DOTmLPF-P required to enable Forces for a given Mission Area Design, based on concepts, and informed by available resources. Examples: training systems, Guardian operators, or power/Heating, Ventilation, and Air Conditioning upgrades.

Concept—Concepts address emerging operational challenges, propose solutions, and identify required capabilities through collaboration, engagement and rigor, in order to enhance the operational effectiveness of the Joint Force. The USSF develops military concepts to propose solutions to future challenges and thereby inform the force design and force development processes.

CONOPS—Describes how to leverage available resources to achieve mission objectives and enable joint functions. CONOPS illustrate the military utility and effectiveness of one or more capabilities to support organize, train, and equip efforts. This application is different from Joint usage to describe the execution of a mission against specific threats to achieve Combatant Command objectives.

CONEMP—A CONEMP is a tactically focused plan which outlines the presentation, employment, and operation of a singular capability. It is informed by requirements for organization, training, materiel, personnel, facilities, and policy. A CONEMP evolves over the development cycle of a system, increasing in fidelity as the system approaches operational acceptance. CONEMPs are used to inform planning and investment decisions.

Fielded Force—Forces as currently constituted. Example: Composite Force offering of combat squadrons

Force—An aggregation of military personnel, weapon systems, equipment, and necessary support, or combination thereof (DoD Dictionary of Military and Associated Terms). Example: Combat Squadron or Combat Detachment.

Force Design— Focused on the 5-15-year time horizon, force design is a continual and iterative process that analyzes, assesses, and recommends what capabilities and force structure the Joint Force should develop and procure through the incorporation of concepts and technologies through experimentation, analysis, and wargames to envision the objective force. (adapted from CJCSI 3100.01F and CJCSI 3030.01A)

Force Development— Force Development provides the mechanism for adapting current functions, capabilities, and concepts to improve future joint force effectiveness in achieving national strategic objectives in accordance with NDS prioritization. USSF works to achieve the objective force through the planning, resourcing, procurement, prototyping, demonstration, and

testing of future capabilities and associated force structure (people, tactics, training, facilities, etc.) across a 2-7-year time horizon, adapting to unexpected challenges as-needed. (adapted from CJCSI 3100.01F and CJCSI 3030.01A)

Force Employment—The process involves planning, force management, and decision making required to fulfill the defense objectives of the National Defense Strategy and U.S. national interests in the National Security Strategy (0-3 years). (adapted from CJCSI 3030.01A)

Force Management—An organizing construct of processes, policies, organizational information, and tools that informs senior leader decision making on the global joint sourcing of the defense strategy. (DODI 8260.03)

Functional Capability Board O-6 Integration Group—A subordinate board of the Joint Requirements Oversight Council that ensures integration of capability portfolios across the Joint Capability Areas; identification of potential tradeoffs between capability areas; evaluation of the effectiveness of, and potential improvement to, the Functional Capability Board core functions; and provides recommendations to the Functional Capability Board GO/FO Integration Group. (CJCSI 5123.01I)

Functional Capability Board GO/FO Integration Group—A subordinate board of the Joint Requirements Oversight Council that ensures cross-Joint Capability Area integration of capability portfolios; identification of potential tradeoffs between capability areas; evaluation of the effectiveness of, and potential improvement to, the Functional Capability Board core functions; and provides recommendations to the Joint Capability Board and Joint Requirements Oversight Council. (CJCSI 5123.01I)

Force Structure—Describes what the service physically has on hand – people, materiel, and infrastructure to generate needed effects.

Government Reference Architecture—A description of the mission capability needed by the warfighter, to include performance constraints, in sufficient detail to allow for the planning, development, and transition of technology-based solutions. This product serves as the starting point for acquisition strategies and plans when engaging with industry.

Leading Candidate Solution—system or system of systems design meant to guide and constrain the instantiations of force development. Leading Candidate Solutions capture assumptions, results, and fulfillment of gaps documented in the Force Design Guidance.

Management—coordinating during process execution and integrating with the following existing processes: requirements generation and prioritization (JCIDS); SPPBE; acquisition and sustainment (AAF); and systems acceptance of capabilities.

Materiel Solution—Denotes all items (including satellites, ground systems, antennas, etc. and related spares, repair parts, and support equipment, but excluding real property, installations, and utilities) necessary to equip, operate, maintain, and support space activities without distinction as to its application for administrative or combat purposes. (adapted from CJCSI 5123.01I)

Mission Area—A major grouping of interrelated activities that must be performed to accomplish a core function. Mission areas are comprised of mission sets.

Mission Needs—collection of inputs aimed at modifying the Fielded Force. Examples: threats, updated national guidance, new or modified concepts, emerging needs (IPLs/Joint Emergent Operational Need/Joint Urgent Operational Need), or Force Assessments.

Non-materiel Solution—Changes to doctrine, organization, training, (fielded) materiel, leadership and education, personnel, facilities, and/or policy, implemented to satisfy one or more capability requirements (or needs) and reduce or eliminate one or more capability gaps. (adapted from CJCSI 5123.01I)

Objective Force—Describes the force the Service believes it will need to fight and win future battles based on strategy, future operating concepts, future and current requirements, anticipated threats, technologies, and the geopolitical environment. It is the output of the force design process focused on a defined time span (e.g., 2025-2040) that is continually iterated as input variables change. It is also a resource informed (DOTmLPF-P) product conceptually identifying the units, formations, and equipment required to ensure space superiority and deliver effects to the Joint fight. It illustrates a possible end with 5-year force delivery checkpoints with finer near-term clarity that enables planners and programmers to envision, invest in, and develop capabilities, technologies, and material and non-material means but is also flexible to changes as learning occurs.

Programmed Force—Consists of the capabilities, facilities, infrastructure, personnel, S&T investments, etc., that have been allocated funding through the PPBE process over the course of the 1st FYDP. The programmed force is not static and changes from one POM cycle to the next. Differences between the objective force and the programmed force indicate areas of strategic regret.