



DoD INSTRUCTION 8420.02

DoD SATELLITE COMMUNICATIONS

Originating Component: Office of the Chief Information Officer of the Department of Defense

Effective: August 3, 2023

Releasability: Cleared for public release. Available on the Directives Division Website at <http://www.esd.whs.mil/DD/>.

Reissues and Cancels: DoD Instruction 8420.02, "DoD Satellite Communications," November 25, 2020

Approved by: John B. Sherman, DoD Chief Information Officer

Purpose: In accordance with the authority in DoD Directive (DoDD) 5144.02, this issuance:

- Establishes policy, assigns responsibilities, and prescribes procedures for satellite communications (SATCOM) resource management as an integral component of the DoD information enterprise (DoD IE).
- Selectively assigns lead organizational responsibilities.
- Assigns responsibilities for adherence to orbital debris mitigation standard practices.
- Clarifies responsibilities for SATCOM international engagement, enterprise-level SATCOM resource management, and obtaining host nation agreements (HNAs).
- Prescribes procedures for requesting, assessing, and determining the disposition of waivers or exceptions to any of the provisions in this policy.
- Identifies and describes the SATCOM Systems Engineering Group (SSEG) governance forum.

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SECTION 1: GENERAL ISSUANCE INFORMATION

1.1. APPLICABILITY.

This issuance applies to OSD, the Military Departments, the Office of the Chairman of the Joint Chiefs of Staff (CJCS) and the Joint Staff, the Combatant Commands (CCMDs), the Office of Inspector General of the Department of Defense, the Defense Agencies, the DoD Field Activities, and all other organizational entities within the DoD (referred to collectively in this issuance as the “DoD Components”).

a. Nothing in this issuance alters or supersedes the existing authorities and policies of the Director of National Intelligence regarding the protection of sensitive compartmented information or timely transmission of critical intelligence pursuant to Executive Order 12333 and other laws and regulations.

b. Nothing in this issuance will be construed to infringe on the DoD Office of Inspector General’s statutory independence and authority in accordance with Sections 401-424 of Title 5, United States Code (U.S.C.), also known as the “Inspector General Act of 1978.”

c. Nothing in this issuance will be construed to infringe on the United States Special Operations Command’s authority described in Section 167 of Title 10, U.S.C. regarding the development and acquisition of special operations-peculiar equipment, material, supplies, and services.

1.2. POLICY.

a. DoD SATCOM resources constitute the SATCOM segment of the Department of Defense information network (DoDIN) as defined in the January 11, 2021, Deputy Secretary of Defense Memorandum.

b. DoD SATCOM matters will be addressed collaboratively through the policy guidance and oversight framework for the DoD IE and the DoD space enterprise.

c. DoD enterprise SATCOM management and control (ESC-MC) will evolve as an integral part of DoD IE management and control to foster efficiency and operational resiliency. DoD SATCOM operational instructions and manuals will be updated by the mission owner of record within 120 calendar days of any substantive changes to remain current and to reflect new processes and procedures that leverage DoD ESC-MC capabilities.

d. The DoD will expand the use of SATCOM-related international agreements for building, sharing, and operating SATCOM capabilities with our international partners. Agreements will be based on mutual interest and will provide a framework to enhance collective security capabilities, to forge closer security ties with allies and partners, and to advance U.S. policy objectives. International partners will be encouraged to participate in DoD SATCOM governance forums, as appropriate, to inform decision-making.

e. When foreign parties are involved in DoD SATCOM resource management, the DoD will conduct activities in accordance with DoD Instruction (DoDI) 2040.02. The sharing of classified DoD SATCOM resources and information will be conducted in accordance with DoDD 5230.11.

f. DoD users of military and commercial SATCOM services must ensure devices and equipment and the users of devices and equipment comply with guidelines for contractual agreements, operations security practices, encryption solutions, naming conventions, and security and transmission guidelines as detailed in the August 8, 2018, DoD CIO Memorandum. These cybersecurity and operations security guidelines mitigate risk to DoD material and personnel.

g. DoD SATCOM user requirements (referred to in this issuance as “user requirements”) will be maintained in an authoritative, comprehensive repository (referred to in this issuance as the “SATCOM user requirements repository” (SURR)) to provide detailed insight into current and future warfighter needs. Approved user requirements in the SURR will inform, and constitute a basis for, architecture planning, acquisition and fielding, and resource allocation decisions.

h. User requirements and system reliability engineering assessments will inform DoD SATCOM architecture planning. DoD SATCOM architectures will inform replenishment decisions, serve as a basis to synchronize acquisition and fielding of DoD SATCOM resources, and maximize operational utility for authorized users.

(1) The DoD SATCOM architecture describes and fosters an interoperable, secure, resilient, joint DoD IE that will:

(a) Employ a shared information technology (IT) infrastructure, enterprise services, and an integrated security architecture that aligns with the DoD Cybersecurity Reference Architecture as well as the zero trust strategies and principles described in the associated DoD Zero Trust Reference Architecture.

(b) Realize IT and National Security Systems (NSS) efficiencies, increase security, and improve mission effectiveness through seamless and integrated connectivity.

(2) Architecture planning will determine the optimum sizing and mix of DoD SATCOM resources based on mission needs, threat, flexibility, and cost-effectiveness.

(3) Technologies that support or enable electromagnetic spectrum agility and efficiency will be identified, assessed, fostered, and incorporated into the DoD SATCOM architecture as applicability and technological maturity warrant.

i. DoD SATCOM resource acquisition and fielding by DoD Components will be consistent with the products of architecture planning.

(1) The DoD will pursue cost savings where practical.

(2) The DoD will proactively mitigate DoD SATCOM capacity risks.

(3) DoD SATCOM acquisition and fielding must comply with national and DoD security policy, strategy, and guidance, in accordance with the National Security Strategy, National Security Directive 42, Committee on NSS Policy No. 12, DoDI 8500.01, Executive Order 14028, and National Security Memorandum (NSM) 8.

(4) DoD SATCOM resource acquisition and fielding must include testing and certification activities, as necessary, to:

(a) Comply with DoDIs 5000.02, 5000.82, 8310.01, 8320.07, 8330.01, 4630.09, 4650.01, and 3222.03.

(b) Demonstrate compliance with applicable IT standards, protocols, and interfaces for the sharing of DoD data, information, and IT services.

(c) Demonstrate compliance with performance specifications.

(d) Ensure interoperability and electromagnetic compatibility.

(e) Demonstrate readiness for operational use.

(5) International Telecommunications Union (ITU) satellite network filings, electromagnetic spectrum allocations, HNAs, and other access agreements established through international engagement forums or government-to-government negotiations will be defended, preserved, and, where necessary, expanded.

(6) DoD SATCOM acquisition and fielding must include provisions for monitoring and collecting situational awareness information, as necessary to provide visibility into resource usage relative to allocation and support service management, including DoD ESC-MC.

j. DoD SATCOM acquisition and fielding plans will guide the modernization, synchronization, integration, and life cycle sustainment across all elements of the DoD SATCOM architecture. Such plans include, but are not limited to, the SATCOM terminal roadmap and the SATCOM teleport roadmap.

k. DoD SATCOM resources will be allocated to authorized users pursuant to approved user requirements based on priority and resource availability.

l. DoD SATCOM service management will be integrated into all levels of DoDIN management to ensure responsiveness to dynamic mission needs.

(1) Situational awareness information and trend analysis will inform DoD SATCOM service management decisions and actions including, but not limited to, performance, fault detection, correlation, and resolution.

(2) Mechanisms such as policy-based management, dynamic reallocation, and positive terminal control will be employed to improve DoD SATCOM resource usage efficiency and resiliency.

(3) Electromagnetic interference (EMI) detection, characterization, geolocation, and mitigation capabilities will be employed worldwide to meet validated service management requirements in the presence of EMI, whether intentional, inadvertent, or environmental.

m. The DoD will promote the responsible and safe use of space in accordance with the latest version of the United States Government Orbital Debris Mitigation Standard Practices to minimize the creation of on-orbit debris from launch through end-of-mission-life, including disposal.

n. The DoD SATCOM architecture will fully leverage innovative commercial SATCOM data transport capabilities to satisfy operational user requirements. Innovative commercial SATCOM data transport capabilities include, but are not limited to, managed end-to-end communications services and provisioning of subscription services (e.g., commercial internet access) employing commercial SATCOM for data transport.

(1) Commercial internet services, when bundled into a commercial SATCOM provider's managed service offering acquired for DoD use and operated over DoD-owned communications terminals, are considered DoD SATCOM resources as defined in the January 11, 2021, Deputy Secretary of Defense Memorandum.

(2) Integration of innovative commercial SATCOM data transport capabilities into the DoD SATCOM enterprise will address interoperability, cybersecurity, resiliency, transparency, accountability, funding, and training in accordance with DoD requirements.

o. Satellite constellations providing a communications capability and operating over DoD-owned communications terminals, regardless of the primary purpose of the satellite constellation, are DoD SATCOM resources as defined in the January 11, 2021, Deputy Secretary of Defense Memorandum.

p. All DoD SATCOM program milestone and decision point approvals will be designed and developed, to the maximum extent practicable, with a modular open system approach to enable incremental development and enhance competition, innovation, and interoperability, in accordance with Section 4401(a) of Title 10, U.S.C.

SECTION 2: RESPONSIBILITIES

2.1. DOD CHIEF INFORMATION OFFICER (DOD CIO).

In accordance with DoDD 5144.02, the DoD CIO:

a. Establishes policy and develops DoD strategy for the SATCOM segment of the DoDIN, including:

(1) Development and dissemination of DoD SATCOM architecture requirements and technical standards.

(2) Operation, maintenance, modernization, and protection of DoD SATCOM systems.

(3) Interoperability and interface standards among and between DoD and non-DoD SATCOM systems.

b. In coordination with the Under Secretary of Defense for Intelligence and Security (USD(I&S)) and the CJCS, provides guidance and oversight for DoD SATCOM network operations and cybersecurity, including standards for defense and protection; DoD IT support to military and joint missions; and resiliency and reliability of information and communications networks.

c. In coordination with the Under Secretary of Defense for Policy (USD(P)), represents the Secretary of Defense in international discussions and negotiations relating to SATCOM cybersecurity to ensure necessary data and services are secure and available to the warfighter for mission priorities. This includes implementing a multi-tiered cybersecurity risk management process as described in DoDIs 8500.01 and 8510.01.

d. In coordination with the USD(P), leads DoD SATCOM international cooperation efforts including, but not limited to:

(1) Serving as the lead for North Atlantic Treaty Organization (NATO) SATCOM activities.

(2) Participating in developing standardization agreements and interoperability efforts through representational functions at NATO committees and working groups.

(3) Coordinates with Defense Security Cooperation Agency on policies that impact the transfer of SATCOM equipment, training, and data to international partners.

e. Provides policy and oversight for all DoD activities related to electromagnetic spectrum matters for SATCOM systems, including commercial, interagency, and international engagement in matters that may impact DoD satellite operations and electromagnetic spectrum use.

f. Leads coordination and maintenance of DoD ITU satellite network filings for DoD SATCOM programs, working through the Defense Information Systems Agency (DISA) and in partnership with the responsible DoD Component.

g. Supports coordination with other countries to ensure their satellite registrations do not cause harmful interference with existing DoD registrations by working through DISA and in partnership with the responsible DoD Component.

h. Establishes policy and provides oversight for all DoD SATCOM networks that support unified capabilities (UC) and UC transport in accordance with DoDI 8100.04.

i. In coordination with the Under Secretary of Defense for Acquisition and Sustainment (USD(A&S)), the Director of Cost Assessment and Program Evaluation, and the CJCS, serves as a sponsor for DoD SATCOM functional capabilities, in accordance with DoDI 5000.82, and as a member of overarching integrated product teams associated with DoD SATCOM programs.

j. Supports and defines processes for allied and non-DoD agency user requirement submissions to the SURR.

k. Leads the development, review, and approval of DoD SATCOM enterprise reference architectures and related technical standards.

l. Coordinates with and helps the USD(I&S), the USD(A&S), the CJCS, and members of the Intelligence Community develop DoD SATCOM reference architectures, common standards, and policies in support of Intelligence Community communications requirements and priorities for the timely transmission of critical intelligence in accordance with Secretary of Defense responsibilities pursuant to Executive Order 12333.

m. Develops and maintains a DoD SATCOM strategy that provides long-term direction and goals for DoD SATCOM capability delivery.

n. In coordination with the USD(A&S), the Secretaries of the Military Departments, and the Combatant Commanders, develops and issues inputs to the annual Capability Planning Guidance to address DoD SATCOM priorities and achieve synchronized and integrated capability delivery.

o. Pursuant to Section 142(b)(2) of Title 10, U.S.C., reviews proposed budgets for DoD SATCOM activities provided by the Secretaries of the Military Departments and the heads of the Defense Agencies. Submits, not later than January 31 of the year preceding the fiscal year for which the budget is proposed, a report to the Secretary of Defense containing comments and certification as to whether each proposed budget adequately satisfies projected obligations and achieve synchronized and integrated capability delivery.

p. In coordination with the USD(A&S) and the CJCS, defines synchronization criteria, including the metrics required to gain insight into DoD SATCOM resource synchronization and integration, and provides guidance to DoD Components for measurement, analysis, and reporting of those metrics.

q. In coordination with the USD(A&S), assesses the synchronization and integration of DoD SATCOM activities and resources within the DoD IE, in accordance with DoDD 8000.01. Identifies synchronization and integration issues, and provides guidance and change actions, as necessary, to the Secretary of Defense, the Deputy Secretary of Defense, the DoD Component heads, and senior decision and advisory forums in accordance with DoDD 5105.79.

r. Analyzes capability synchronization and integration recommendations as documented by the Chief of Space Operations (CSO), including change actions (to inform solution architecture development and acquisition and fielding plans) and budgetary recommendations, and provides budgetary guidance to DoD Components, as appropriate, to resolve instances of non-synchronized programs.

s. Reviews and approves the consolidation and establishment of new joint SATCOM teleports and transfer of responsibility for funding, operations, and sustainment of joint SATCOM teleports and associated SATCOM teleport terminals among and between DoD Components.

t. Oversees DoD SATCOM solution architecture analyses.

u. Establishes mechanisms, including business case analyses, to review investments for compliance with DoD SATCOM solution architectures, standards, and policy.

v. Establishes policy and guidance governing DoD SATCOM acquisition and fielding plans.

w. In coordination with the CJCS, provides guidance to DoD Components for reporting DoD SATCOM usage and expenditures.

x. In coordination with the USD(A&S) and the CJCS, defines DoD-wide standards for a terminal certification process that integrates terminal certification into the regulatory framework for interoperability assessment to the maximum degree practicable. These standards will provide cost visibility, ensure timely and efficient certification, avoid duplicative testing activities, and establish criteria to minimize repetitive testing due to terminal configuration changes.

y. Provide guidance to ensure DoD issuances conform to the guidance in the January 11, 2021, Deputy Secretary of Defense Memorandum regarding the SATCOM segment of the DoDIN.

z. Reviews and approves requests from DoD Components for waivers or exceptions to any of the provisions in this policy.

2.2. DIRECTOR, DISA.

Under the authority, direction, and control of the DoD CIO, in addition to the responsibilities in Paragraph 2.8., and in accordance with DoDD 5105.19, the Director, DISA:

a. Maintains, administers, and hosts the current instantiation of the SURR capability for the CJCS.

b. Pursuant to DoD CIO guidance and in coordination with the CJCS; the Commander, United States Space Command (CDRUSSPACECOM); and the Commander, United States Cyber Command (CDRUSCYBERCOM), performs DoD SATCOM user demand modeling to inform architecture planning activities.

c. Maintains standards for interfaces between the SATCOM segment of the DoDIN and other segments of the DoDIN.

d. Through DISA security technical implementation guides (STIGs), establishes security requirements for DoD IT systems that provide UC over the SATCOM segment of the DoDIN, and verifies compliance with such STIGs during assessments or inspections.

e. Establishes requirements for, and oversees and maintains the approval processes related to, the connection of SATCOM resources to the Defense Information Systems Network (DISN).

f. Performs systems engineering for joint SATCOM teleports, DISN services delivered through joint SATCOM teleports, and interfaces between all SATCOM resources and the DISN, to ensure DoD SATCOM resources are planned, operated, maintained, managed, and improved effectively and efficiently to satisfy interoperability and mission requirements.

g. Provides DoD SATCOM capability development, integration, and management services and support for interagency, strategic, allied, multi-national, coalition, joint, and combined command, control, and combat support capabilities.

h. Leads the integration and hosting of DoD ESC-MC capabilities as IT services as part of DoD IE management and control, in accordance with DoDI 8010.01 and the DoD ESC-MC reference architecture and implementation plan.

i. Identifies DoD SATCOM situational awareness information necessary for effective DoDIN operational management, including, but not limited to, the configuration and operational status of DoD SATCOM resources.

j. In coordination with the CJCS and the Service Chiefs, leads development and maintenance of the SATCOM teleport roadmap that complies with DoD SATCOM reference architectures and related solution architectures.

k. Develops and maintains the approved products list of certified products that provide UC over the SATCOM segment of the DoDIN.

l. Processes and submits letters of DoDIN standards compliance for DoD SATCOM systems to the appropriate DoD CIO governance forum, and coordinates with the CJCS in issuing waivers, as appropriate.

m. Maintains and directs a major field-independent operational test capability through the Joint Interoperability Test Command for operational testing and evaluation in accordance with DoDD 5000.01 and DoDI 5000.02.

n. Through the Joint Interoperability Test Command, serves as the interoperability certification authority for products that support UC over the SATCOM segment of the DoDIN and as the cybersecurity certification authority for products that support UC over the SATCOM segment of DISA-owned or -operated networks.

o. In accordance with procedures developed pursuant to DoDI 4650.01, prepares host nation coordination requests (HNCRs) for joint SATCOM teleport terminal uplinks and works through CCMDs to obtain, defend, and renew HNAs.

p. In coordination with the CJCS and the Service Chiefs, leads SATCOM teleport modernization, synchronization, integration, and life cycle sustainment activities, and leads coordination of SATCOM teleport configuration management actions by all DoD Components for any change which may impact DoD IE capabilities.

q. Reviews the implementation and execution status of all SATCOM-related DISA programs, activities, and management actions with the DoD CIO on a quarterly basis to assess synchronization and integration with other DoD Components' SATCOM-related activities.

2.3. USD(P).

In accordance with DoDDs 5111.01 and 3100.10, the USD(P):

a. Validates DoD SATCOM systems' compliance with DoD policy and with relevant agreements with Federal agencies, commercial providers, and international partners.

b. In coordination with the CSO, reviews resource sharing requests, determines an appropriate response to the request and formulates an action plan along with key stakeholders.

c. Represents the Secretary of Defense in international discussions and negotiations relating to the SATCOM segment of the DoDIN.

d. Coordinates with the DoD CIO and international partners to promote interoperability and secure integration of network connections and information sharing.

e. Formulates DoD policy and guidance on international agreements and legal regimes affecting DoD SATCOM activities.

f. Participates in Planning, Programming, Budgeting, and Execution (PPBE) activities, including advising the Secretary of Defense, on DoD programs and budget priorities for space.

2.4. USD(A&S).

As the Defense Acquisition Executive in accordance with DoDD 5135.02, the USD(A&S):

a. Oversees DoD SATCOM resource acquisition to ensure compliance with DoDD 5000.01 and DoDIs 5000.02 and 8580.1.

- b. Provides procedures, guidance, and program direction on DoD SATCOM resource acquisition through acquisition decision memorandums.
- c. Designates the DoD lead for acquisition of SATCOM resources designated as major defense acquisition programs, in accordance with DoDI 5000.02.
- d. Provides acquisition oversight of Acquisition Category I – Defense Acquisition Board SATCOM programs and inter-program dependencies on DoD SATCOM resources for the synchronized, timely acquisition and fielding of the required capabilities.
- e. As co-chair of the Council on Oversight of the National Leadership Command, Control and Communications System (CONLC3S), pursuant to Section 171a of Title 10, U.S.C., evaluates all SATCOM programs that contribute to the National Leadership Command Capability and addresses any related critical gaps.
- f. Administers the International Agreement Tracking System to formally staff and track the status of the DoD’s proposed acquisition-related international agreements as well as provide a mechanism for collecting and consolidating edits and comments from DoD staffing entities.
- g. In accordance with Section 2275 of Title 10, U.S.C., provides reports to congressional defense committees on the synchronization of acquisition and fielding schedules for segments of major SATCOM acquisition programs and funding for such programs. This includes the DoD SATCOM space-segment, teleport and associated ground infrastructure, management and control, and user terminals as well as related programs that are necessary to fully exploit the required capability.

2.5. UNDER SECRETARY OF DEFENSE FOR RESEARCH AND ENGINEERING.

As the Chief Technology Officer of the DoD in accordance with DoDD 5137.02, the Under Secretary of Defense for Research and Engineering:

- a. Establishes policies and strategic guidance for DoD SATCOM technology development, technology transition, developmental prototyping, experimentation, and developmental testing activities and programs.
- b. Focuses science and technology efforts to mature critical technology domains.
- c. Coordinates with the DoD CIO and other OSD and DoD Component heads across the SATCOM community to ensure technology development is aligned with the road to dominance modernization priorities.
- d. Advises the USD(A&S) and the Service Chiefs on research, engineering, developmental test, mission engineering, joint architectures, technical risk, and prototyping outcomes for DoD SATCOM-related major defense acquisition programs.

2.6. USD(I&S).

The USD(I&S) coordinates with and assists the DoD CIO, the USD(A&S), the CJCS, and members of the Intelligence Community in producing SATCOM architectures, common standards, and policies for support of Intelligence Community communications requirements and priorities for the timely transmission of critical intelligence.

2.7. DIRECTOR OF COST ASSESSMENT AND PROGRAM EVALUATION.

In addition to the responsibilities in Paragraph 2.8., the Director of Cost Assessment and Program Evaluation:

- a. Develops and issues analysis of alternatives (AoA) study guidance in accordance with DoDI 5000.84, including language establishing a study advisory group to oversee the AoA.
- b. Oversees the consideration of DoD SATCOM requirements as part of an AoA.
- c. Provides recommendations to the Deputy Secretary of Defense for addressing critical SATCOM issues through the PPBE process, as appropriate.

2.8. DOD COMPONENT HEADS.

The DoD Component heads:

- a. Prepare and submit current and future user requirements in accordance with CJCS-defined processes and procedures for the formulation, submission, review, and approval of user requirements in the SURR.
- b. Conduct and support AoAs in accordance with DoDI 5000.84.
- c. Ensure the DoD SATCOM architecture planning, acquisition and fielding, resource allocation, and service management activities under their purview include:
 - (1) PPBE activities regarding DoD SATCOM resources, as well as operation and management of those resources, in accordance with DoDI 8010.01.
 - (2) Alignment to DoD SATCOM reference architectures.
 - (3) Synchronization and integration of DoD SATCOM capabilities within the DoD IE.
 - (4) Development and maintenance of applicable documentation, including concepts of operations, initial capabilities documents, capability development documents, the four mandatory key performance parameters (KPPs) (i.e., energy, system survivability, force protection, and sustainment), and the net ready (NR) performance attribute for DoD Component IT, in accordance with CJCS Instruction 5123.01I and DoDI 8330.01.

(5) Provisions for systems' regular reporting of situational awareness information in accordance with CJCS guidance.

(6) Timely incorporation of cybersecurity activities in the DoD SATCOM systems' lifecycle in accordance with DoDI 8510.01.

(7) Test and evaluation activities incorporated into DoD SATCOM systems' development processes in accordance with DoDI 5000.89.

d. Provide programmatic and funding information to the Secretary of the Air Force (for both joint and Component-specific SATCOM programs and systems) to support DoD SATCOM capability synchronization and integration reviews.

e. In accordance with Section 142(b)(2)(A) of Title 10, U.S.C., develop the Military Departments' and Defense Agencies' proposed budgets for DoD SATCOM activities (responsive to DoD CIO annual Capability Planning Guidance and spanning the Future Years Defense Program (FYDP)). Submit to the DoD CIO and the CDRUSSPACECOM for review each fiscal year before submitting the proposed budget to the Under Secretary of Defense (Comptroller)/Chief Financial Officer, Department of Defense.

f. Submit DoD SATCOM acquisition and fielding information to support development of SATCOM roadmaps and other acquisition and fielding plans, as appropriate, in accordance with guidance provided by the DoD CIO.

g. Leads, as assigned (e.g., as an executive agent), the development and maintenance of joint solution architectures that are synchronized and integrated with the evolving DoD SATCOM enterprise architecture.

h. Develop and maintain Component-specific solution architectures that are synchronized and integrated with the evolving DoD SATCOM enterprise architecture.

i. Provide PPBE for development, acquisition, fielding, and sustainment of SATCOM teleport capabilities, in accordance with the SATCOM teleport roadmap.

(1) Each Component will budget and provide funding, as assigned, for SATCOM teleport terminals (to be acquired through the appropriate DoD lead for SATCOM teleport terminal acquisition) to meet the needs of the joint DoD community, as documented in approved joint requirements.

(2) Each Component will budget and provide funding for SATCOM teleport terminals (to be acquired through the appropriate DoD lead for SATCOM teleport terminal acquisition) across all SATCOM teleports to satisfy their own approved individual-Component requirements.

(3) Each Component will budget and provide funding, as assigned, for SATCOM modems, baseband equipment, and ancillary equipment to meet the needs of the joint DoD community, as documented in approved joint requirements.

(4) Each Component will budget and provide funding for SATCOM modems, baseband

equipment, and ancillary equipment across all SATCOM teleports to satisfy their own approved individual-Component requirements.

j. Identify to the DoD CIO, the USD(A&S), and the CJCS, through the PPBE process, the details and effects of budget decrements, fiscal shortfalls, and funding redistributions on current and future SATCOM resources.

k. Develop, acquire, field, and sustain Component-specific SATCOM resources, including SATCOM user terminals and Component-specific SATCOM teleports. Coordinate with designated satellite acquisition components and terminal installation offices to implement all user capability requirements that each terminal is intended to provide.

l. Plan, program, and budget for acquisition of commercial SATCOM services, as needed to augment DoD SATCOM enterprise resources to satisfy Component-specific user requirements. These Component-specific user requirements may be short-term to meet an immediate need or a long-term requirement. Acquisition of commercial SATCOM services will be reported as an IT investment, and a business case analysis for acquisition approach will be provided, in accordance with DoDD 8000.01 and DoDI 8115.02.

m. Prepare and submit to the Secretary of the Air Force all commercial SATCOM resource acquisition and contract modification requests, citing the applicable approved user requirements.

n. In accordance with procedures developed pursuant to DoDI 4650.01, prepare HNCRs for Component-specific SATCOM teleport terminal uplinks and SATCOM user terminal uplinks. Work with CCMDs to obtain, defend, and renew HNAs.

o. Oversee the timely reporting of situational awareness information to support DoD SATCOM resource allocation and service management activities, in accordance with CJCS guidance.

p. Prepare and submit to the Secretary of the Air Force DoD SATCOM usage and expenditure information in accordance with content guidance provided by the DoD CIO.

q. Allocate commercial SATCOM services acquired by their respective DoD Component for their own use (that is, excluding DoD SATCOM enterprise resources) and provide for the timely reporting of situational awareness information for those resources in accordance with CJCS guidance.

r. Operate allocated DoD SATCOM resources consistent with access authorizations and respective user requirements, establishing access and restoration priorities for all subordinate units in accordance with appropriate strategic plans (e.g., operation plans (OPLANs), concept plans, operation orders).

s. Plan, develop, implement, and execute DoDIN operations across DoD Component-operated portions of the DoDIN, in accordance with DoDI 8410.02.

t. In coordination with the CJCS, designate types of configuration changes or operational sustainment actions that are likely to impact operational aspects of DoD SATCOM resource

management. Coordinate with the CJCS and other impacted DoD Components, including DISA in respect to joint SATCOM teleports, to inform the planning for and execution of these types of actions. This includes, but is not limited to, equipment fielding, site modifications, and significant funding or manning decrements.

u. For DoD SATCOM programs, determine if existing DoD ITU satellite network filings satisfy mission requirements and are consistent with the CSO's ITU satellite registration strategy. If existing filings are not sufficient, coordinate with the DoD CIO and the CSO to file new or modified ITU satellite network filings that are in accordance with CDRUSSPACECOM-identified mission requirements.

v. Maintains DoD SATCOM ITU satellite network filings to include required ITU communications and monitoring of other nations' satellite filings for potential impacts.

w. In accordance with DoDI 4650.01, acquire:

(1) U.S. National Telecommunications and Information Administration (NTIA) certification for new DoD-owned and -operated communication satellites.

(2) U.S. NTIA certification for new and modified SATCOM teleport terminals and user terminals which will operate in the United States and its possessions.

(3) U.S. NTIA frequency assignments for DoD communication satellites which will operate in the United States and its possessions.

(4) U.S. NTIA frequency assignments for SATCOM teleport terminals and user terminals in the United States and its possessions.

x. Submit requests for waivers or exceptions to DoD SATCOM-related policies and procedures to the DoD CIO via the SATCOM waiver/exception portal (available on NIPRNet at <https://dod365.sharepoint-mil.us/sites/DoDCIO-C3I/Lists/SWR> or on SIPRNet at <https://intelshare.intelink.sgov.gov/sites/C3I/Lists/SWR>) for review and approval.

2.9. SECRETARIES OF THE MILITARY DEPARTMENTS.

In addition to the responsibilities in Paragraph 2.8., the Secretaries of the Military Departments:

a. Develop Military Department-level operational concepts and procedures that align with DoD SATCOM solution architectures and acquisition and fielding plans.

b. In coordination with the CSO and the Director, DISA, perform facility configuration management of Military Department-controlled facilities that host SATCOM teleports, in accordance with Sections 7062, 8062, 8063, 9062, and 9081 of Title 10, U.S.C.

c. In coordination with the CSO and the Director, DISA, perform operations and maintenance of systems hosted at Military Department-controlled facilities that provide

SATCOM capabilities, in accordance with Sections 7062, 8062, 8063, 9062, and 9081 of Title 10, U.S.C.

2.10. SECRETARY OF THE ARMY.

In addition to the responsibilities in Paragraphs 2.8. and 2.9., the Secretary of the Army serves as the DoD lead for development, testing, acquisition, and integration of wideband SATCOM teleport terminals to meet the needs of the joint DoD community as well as individual DoD Components, in accordance with approved requirements and funding provided by the requesting DoD Component.

2.11. SECRETARY OF THE AIR FORCE.

In addition to the responsibilities in Paragraphs 2.8. and 2.9., the Secretary of the Air Force:

- a. Provides programmatic and funding information to the Military Services (for both joint and CSO-specific SATCOM programs and systems) to support DoD SATCOM capability synchronization and integration reviews.
- b. Coordinates the development of acquisition and fielding plans with DoD Components, in accordance with guidance provided by the DoD CIO.
- c. Leads the development, testing, acquisition, fielding, and sustainment of:
 - (1) DoD-owned and -operated narrowband, wideband, and protected SATCOM space-segment resources, including responsibility for PPBE.
 - (2) SATCOM payload control systems for DoD-owned and -operated narrowband, wideband, and protected SATCOM resources, including responsibility for PPBE.
 - (3) Satellite bus control systems for DoD-owned and -operated narrowband, wideband, and protected SATCOM resources, including responsibility for PPBE.
- d. Serves as the DoD lead for development, testing, acquisition, and integration of narrowband and protected SATCOM teleport terminals to meet the needs of the joint DoD community as well as individual DoD Components, in accordance with approved requirements and funding provided by the requesting DoD Component.
- e. In coordination with the CJCS and the Director, DISA, leads the development of an integrated planning process and associated tools for managing user access to DoD-owned and -operated communications satellite payloads and commercial SATCOM services, including responsibility for PPBE.
- f. Provides DoD Components with access to commercial SATCOM services.

(1) Leads the acquisition of commercial SATCOM services to satisfy Component-specific demand, consistent with approved user requirements and funding provided by the requesting DoD Component.

(2) Leads the acquisition of commercial SATCOM services, including responsibility for PPBE, to satisfy joint DoD requirements, improve the resiliency of the DoD SATCOM enterprise resources, and ensure the scalability and adaptability of the DoD SATCOM enterprise resources to meet growing and varying warfighter demand.

(3) Ensures contracts include provisions supporting integration of commercial SATCOM services with DoD ESC-MC.

(4) Ensures commercial SATCOM resource acquisition includes provisions requiring commercial SATCOM service providers to help the DoD detect, characterize, geolocate, and mitigate EMI.

(5) Ensures acquisition of commercial SATCOM services enables the National Security Agency to swiftly carry out joint COMSEC monitoring activities and network vulnerability assessments.

(6) Investigates and assesses emergent commercial SATCOM products and services. Among commercial solutions offered to the DoD or the public, analyzes and reports on potential opportunities and risks for DoD users. Circulates findings to the DoD SATCOM community regarding:

- (a) Published data rates, service packages, coverage areas, and associated costs.
- (b) Interoperability between emerging solutions and DoD SATCOM systems.
- (c) Providers' statements regarding foreign shares of ownership.
- (d) Providers' statements regarding supply-chain integrity and associated control.

g. Collects data in accordance with DoD CIO guidance, conducts DoD SATCOM operational usage and expenditure analyses using comparative cost metrics among all forms of DoD SATCOM (e.g., DoD-owned and –operated, commercial services, internationally-partnered services) to identify procurement and usage inefficiencies, identifies opportunities for cost savings, and documents the resulting data and findings in annual DoD SATCOM usage and expenditure reports.

h. Develops reliability engineering assessments that define:

(1) The status of narrowband, wideband, and protected SATCOM space-segment resources, including availability status, end-of-mission-life projection, and SURR-derived demand.

(2) For each satellite type or instance, end-of-mission-life criteria (e.g., the status of spacecraft avionics, fuel supply) that will be used to inform post-mission satellite disposal

decisions. Delivers the reliability engineering assessments to the DoD CIO, USD(A&S), and CJCS before Program Objective Memorandum (POM) and President's Budget Request submissions each year.

i. In accordance with the July 20, 2020, Assistant Secretary of Defense for Homeland Defense and Global Security Memorandum, promotes the responsible and safe use of space through design of spacecraft and mission profiles, consistent with orbital debris mitigation standard practices, to minimize the creation of on-orbit debris from launch through end-of-mission-life, including disposal.

j. Develops and maintains an ITU satellite network filing strategy that provides orbital maneuver space to existing and future DoD SATCOM programs, and allies, as required. If existing filings are not sufficient, files new or modifies existing DoD ITU satellite network filings in coordination with the DoD CIO, the USD(P), and the CDRUSSPACECOM.

k. In accordance with procedures developed pursuant to DoDI 4650.01, prepares HNCRs for all downlinks from DoD-owned and –operated satellites into user terminals, Component-specific SATCOM teleports, and joint SATCOM teleports located within the host nation and works through CCMDs to obtain, defend, and renew HNA.

l. Leads the development and maintenance of the DoD ESC-MC, including PPBE responsibility for capability development, acquisition, fielding, and sustainment as an integral part of DoD IE management and control. The DoD ESC-MC capability supports the sharing of DoD SATCOM situational awareness information with authorized users in near real-time to support resource allocation and service management. The DoD ESC-MC capability, which includes requirements management functionality to replace the current instantiation of the SURR, will be delivered to DISA for integration and hosting.

m. Ensures DoD SATCOM systems are developed, acquired, fielded, and sustained in accordance with national and DoD security policy, strategy, and guidance as provided in the National Security Strategy, National Security Directive 42, Committee on NSS Policy No. 12, and DoDI 8500.01.

n. Through the CSO:

(1) On behalf of the Secretary of the Air Force, leads integration of all joint and Component-specific SATCOM requirements in accordance with Joint Requirements Oversight Council Memorandum 029-21.

(2) On behalf of the Secretary of the Air Force and in coordination with the DoD CIO, serves as the Military Services' focal point to collect, aggregate, and integrate DoD SATCOM capability requirements. Delivers, using the Joint Capabilities Integration and Development System process and as directed by the JROC, the aggregated SATCOM requirements for validation and inclusion in the DoD SATCOM enterprise architecture.

(3) Serves as the force design architect for space systems of the Military Services in accordance with the August 17, 2022, Secretary of Defense Memorandum. Under the authority, direction, and control of the Secretary of the Air Force, presents coordinated recommendations to

the Secretary of Defense regarding space-mission force design options to satisfy the SATCOM requirements of the joint force and the Military Services.

(4) Assesses synchronization and integration of current and projected DoD SATCOM capability delivery and provides budgetary recommendations to the DoD CIO to resolve instances of non-synchronized programs.

(5) On behalf of the Secretary of the Air Force, leads development and maintenance of an integrated DoD SATCOM enterprise solution architecture consistent with DoD SATCOM reference architectures, SURR, identified threats, and DoD Components' acquisition and fielding plans, addressing:

(a) Funding strategy for operations and sustainment of DoD SATCOM resources.

(b) Synchronization and integration of DoD SATCOM space-segment, teleport and associated ground infrastructure, management and control, and user terminal resources.

(6) Maintains an online library of jointly-approved integrated DoD SATCOM enterprise solution architectures.

(7) In coordination with the USD(A&S) and DISA, conducts DoD SATCOM solution architecture analyses to inform acquisition and fielding plans and space architecture activities that support and enable the SATCOM segment of the DoDIN.

(8) In coordination with the CJCS and the Service Chiefs, leads development and maintenance of the SATCOM terminal roadmap in compliance with DoD SATCOM reference architectures and related solution architectures.

(9) In coordination with the CJCS and the Service Chiefs, leads development and maintenance of SATCOM space-segment roadmaps addressing narrowband, wideband, and protected SATCOM architecture plans, each of which include both military and commercial SATCOM as applicable to their bands.

(10) Guides DoD Components in specifying and documenting their technical requirements for commercial SATCOM services to inform acquisition and fielding.

2.12. CJCS.

In addition to the responsibilities in Paragraph 2.8., and in coordination with the other DoD Component heads, the CJCS:

a. As the global integrator, provides decisional advice to the President and the Secretary of Defense concerning DoD SATCOM operational policies, responsibilities, and programs.

b. Oversees operational SATCOM activities and resources supporting Presidential and DoD requirements at all levels of conflict.

- c. As co-chair of the CONLC3S, evaluates and certifies SATCOM programs that contribute to the National Leadership Command Capability.
- d. Defines processes and procedures for the formulation, submission, modification, review, and approval of user requirements, including mechanisms to address urgent or short-duration needs.
- e. Defines the metrics and mechanisms for prioritization of user requirements for access to SATCOM payload resources.
- f. Defines processes and procedures for the allocation of DoD SATCOM enterprise resources to authorized users consistent with approved user requirements in the SURR.
- g. Defines the process for escalation and resolution of resource allocation contentions arising between DoD SATCOM users; and acts as the final adjudication authority on such matters.
- h. Provides guidance for the content, preparation, and issuance of access authorizations, changes to access authorizations, and preemptions.
- i. Assesses resource allocation metrics and, in coordination with the DoD CIO, implements enforcement mechanisms to improve compliance with user requirements and transmission plans, correct deficiencies, and improve efficiency.
- j. Maintains correlation between approved user requirements and corresponding allocated resources, accounting for potentially dynamic changes to both the requirements set and the servicing media and allocation.
- k. Validates CCMD-identified requirements for information sharing over SATCOM with coalition partners.
- l. Reviews and forwards recommendations to the DoD CIO regarding proposed international agreements or other formal arrangements between the DoD and non-DoD entities for SATCOM resource sharing not covered by CJCS Instruction 6740.01D.
- m. Defines processes and procedures to assess the operational mission impact of proposed international agreements, quantify the projected impacts, and inform subsequent negotiations.
- n. Reviews and validates CDRUSSPACECOM- and DISA-identified DoD SATCOM situational awareness information necessary for effective DoD SATCOM operational management as a segment of the DoDIN. Provides such information as guidance to DoD Components responsible for DoD SATCOM resource acquisition and fielding, resource allocation, and service management.
- o. Defines DoD SATCOM service management processes and procedures necessary to establish and maintain operational services consistent with resource allocation decisions and corresponding access authorizations.

p. Provides near-term resource allocation projections spanning the current year through the FYDP to the DoD CIO for use in architecture planning, based on evolution of approved user requirements in the SURR, operational resource commitments, current and projected operational DoD SATCOM resources, CJCS Capability Gaps Assessment, and other applicable guidance and studies.

q. Defines processes and functional capabilities necessary to support EMI detection, characterization, geolocation, and mitigation affecting DoD SATCOM resources.

r. Helps the DoD CIO review approved requirements associated with programs of record against the DoD SATCOM solution architectures to inform program decisions.

s. In coordination with the DoD CIO, tasks the CCMDs to provide acquisition and fielding plans addressing current and future DoD SATCOM.

t. Validates operational requirements for SATCOM teleport terminals, including high-demand, limited-quantity theater-deployable SATCOM assets.

u. In coordination with the CSO, the CDRUSSPACECOM, and the Director, DISA, performs SATCOM teleport operational impact assessments and provides recommendations to the DoD CIO.

v. Reviews CDRUSSPACECOM recommendations for the establishment, consolidation, and transfer of SATCOM teleports and associated SATCOM teleport terminals among and between DoD Components, and submits endorsed recommendations, as appropriate, to the DoD CIO for approval.

w. Provides specific guidance on preparation, format, content, timelines for submission, and review of the four mandatory KPPs, and the NR performance attribute for SATCOM terminals to minimize the time and cost of additional certification processes for testing required by acquisition regulations, interoperability requirements, and IT standards. Serves as certification authority for the four mandatory KPPs and the NR performance attribute, in accordance with CJCS Instruction 5123.01I and DoDI 8330.01, for all SATCOM terminals designated as Joint Requirements Oversight Council Interest, as Joint Capabilities Board Interest, or for Joint Integration by the Joint Staff Gatekeeper.

x. Maintains an authoritative list of programs and systems designated "joint" for use in determining DoD Components' cost sharing responsibilities.

y. In coordination with the DoD CIO, independently verifies CSO portfolio resourcing and execution priorities, as articulated in the CSO's POM, delivers the Joint Staff SATCOM capability requirements aggregated from the Services, and allocated to the CSO. This CSO POM portfolio resourcing priority review, relative to user requirements for joint military operational capabilities, should occur before CSO's POM submission to the OSD Cost Assessment and Program Evaluation.

2.13. CCMDS.

In addition to the responsibilities in Paragraph 2.8., the CCMDS:

- a. In accordance with procedures developed pursuant to DoDI 4650.01, coordinate HNCRs for operation of SATCOM systems, teleports, and user terminals with host nations in accordance with procedures developed between the CCMD and host nation.
- b. Identifies requirements for information sharing over SATCOM with coalition partners.

2.14. CDRUSCYBERCOM.

In addition to the responsibilities in Paragraphs 2.8. and 2.13., the CDRUSCYBERCOM performs DoD SATCOM resource management activities as assigned in the Unified Command Plan.

2.15. CDRUSSPACECOM.

In addition to the responsibilities in Paragraphs 2.8. and 2.13., the CDRUSSPACECOM:

- a. Performs DoD SATCOM resource management activities as assigned in the Unified Command Plan.
- b. Develops and maintains SATCOM priority planning guidance to inform the DoD's near-term investment in DoD SATCOM capabilities.
- c. Identifies situational awareness information necessary for effective DoD SATCOM operational management, including, but not limited to, the configuration and operational status of DoD SATCOM resources.
- d. In coordination with the DoD CIO, oversees management and use of ITU satellite network filings across the DoD SATCOM enterprise.
- e. Serves as the primary operator of the DoD ESC-MC capability.
- f. In collaboration with other DoD Components, develops business rules to support automation of resource allocation processes by ESC-MC and element management and control systems, as appropriate.
- g. Operates DoD SATCOM systems in accordance with national and DoD security policy, strategy, and guidance as provided in the National Security Strategy, National Security Directive 42, Committee on NSS Policy No. 12, DoDIs 8500.01 and 8510.01, Executive Order 14028, and NSM-8.
- h. Coordinates planned and emergent outages to support software uploads, SATCOM system reconfigurations, new capability development, satellite redeployments, countermeasures

deployment, and any additional events that affect the ability to deliver DoD SATCOM resources efficiently and effectively.

i. Upon determination that a satellite has reached its end-of-mission-life based on end-of-mission-life criteria defined in reliability engineering assessments and promptly executes post-mission satellite disposal in accordance with Orbital Debris Mitigation Standard Practices.

SECTION 3: PROCEDURES

3.1. GOVERNANCE FORUMS.

a. The SSEG is the executive-level DoD SATCOM-focused governance forum that supports the Command, Control, and Communications Leadership Board (C3LB) and the Command, Control, and Communications and Cyber Functional Capabilities Board (see the SSEG Charter). The SSEG focuses on DoD SATCOM enterprise-level issues and synchronizes space-segment, teleport and associated ground infrastructure, management and control, and user terminal portions of SATCOM capabilities through policy, operational, and technical solutions. When applicable, this includes the review and evaluation of requests for waivers or exceptions to this issuance's policies and procedures as well as other DoD SATCOM-related policy and doctrinal issuances. The SSEG may elevate findings, alternative views, non-concurrence, and recommendations to the C3LB for further action and decisions, and, if necessary, to other DoD governance forums for situational awareness or hand-off for action and processing.

b. The C3LB is the DoD's principal governance forum for effectively overseeing command, control, and communications transport (terrestrial, aerial, maritime, and satellite-based); electromagnetic spectrum enterprise; commercial mobile devices and cellular technologies; and enterprise command, control, and communications services (see C3LB Charter). The C3LB will coordinate and synchronize relevant issues with the appropriate governance authorities. Where execution authority exists within the principal membership or has been delegated to them, the C3LB makes decisions as an executive-level body. When statutory responsibility exists outside of the principal membership, the C3LB will provide recommendations to the appropriate decision authority (e.g., the CIO Executive Board; Military Command, Control, Communications, Computer Executive Board; or overarching integrated product team).

3.2. INTERNATIONAL ENGAGEMENT.

a. The sponsoring DoD Component for each SATCOM international agreement will be determined based upon the criteria in DoDI 5530.03.

b. In coordination with the USD(P), the DoD CIO, and the CDRUSSPACECOM, the CJCS will:

(1) Address candidate SATCOM sharing arrangements from a system-wide solution (end-to-end) perspective to ensure all factors are considered (e.g., power and bandwidth access, resource allocation mechanism, ground impacts, terminal availability, cybersecurity, and cryptographic considerations).

(2) Identify criteria for tracking and controlling the progress of candidate SATCOM sharing arrangements. This includes:

(a) Identifying entry points for requests and the sponsoring DoD Component.

(b) Conducting and accepting operational mission impact assessment.

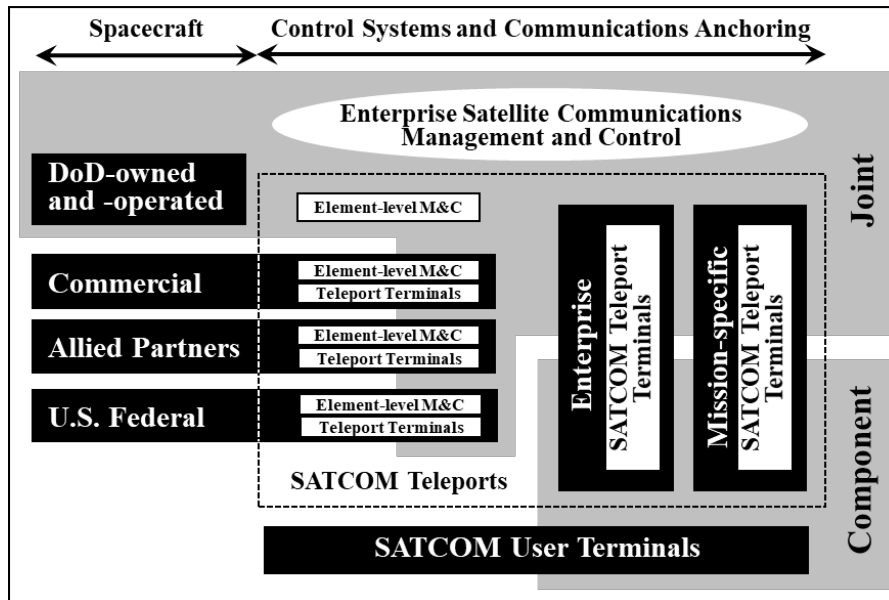
- (c) Obtaining satellite network and electromagnetic spectrum use authorizations.
- (d) Developing DoDIN cybersecurity and integration plans.
- (e) Documenting and approving the sharing arrangement.
- (f) Obtaining approval to execute.

(3) Conduct timely operational mission impact assessments to quantify and clearly define the impacts of proposed sharing arrangements. This includes, but is not limited to, SATCOM resource capacity analysis. Impact assessments must consider potential effects upon DoD and U.S. Government stakeholders beyond those directly involved in the agreement. The products of operational mission impact assessment include recommendations and mitigations, as appropriate, for each significant finding.

3.3. DOD SATCOM RESOURCE MANAGEMENT.

DoD SATCOM resource management comprises the requirements management, architecture planning, acquisition and fielding, resource allocation, and service management functional areas, as described in Paragraphs 3.3.a. through 3.3.e. and as defined in the Glossary. Operational aspects of DoD SATCOM resource management are encompassed within the resource allocation and service management functional areas. DoD SATCOM resources constitute an assemblage of functional elements that collectively satisfy both joint and Component-specific requirements, though the boundary between the two is sometimes indistinct. Figure 1 provides a generalized depiction of SATCOM elements and their relationships. Clear assignment of PPBE responsibilities is necessary to achieve unity of effort in the development, acquisition, fielding, operations, and sustainment.

Figure 1. Generalized SATCOM Elements and Relationships



a. Requirements Management.

(1) The Joint Staff will direct and maintain the CJCS-defined processes and procedures for the formulation, submission, review, and approval of DoD SATCOM user requirements. DISA will maintain, administer, and host the SURR. The CSO will develop and deliver future instantiations of the SURR capability as part of DoD ESC-MC.

(2) The DoD Components will develop, review, and update DoD SATCOM user requirements in the SURR in accordance with CJCS guidance to maintain the accuracy of the requirements and to ensure mutually consistent citation of references that justify the need for SATCOM resources (e.g., OPLANs, concept plans, operation orders).

(a) DISA will administer and host the SURR. All DoD SATCOM user requirements, regardless of servicing media (DoD-owned and –operated satellites or otherwise) will be recorded in the SURR by DoD Components. SURR content must include:

1. Current and future user requirements.
2. CJCS-defined communications service priority information to inform resource allocation decisions.
3. Concepts of operations, mission categories, user information, communications details, applicable media, demand stability (categorized by “Layer,” as defined in the Glossary), and other content necessary to support the association of requirements with specific scenarios and analyses.
4. CJCS-defined rules and policies related to user requirements.

(b) The Joint Staff will define and maintain a SURR process for waivers to these requirements management policies.

1. DoD Components may only request SURR waivers for urgent or short-duration needs.
2. SURR waivers must not be used in lieu of or to circumvent the normal SURR requirements process.

b. Architecture Planning.

(1) The CSO will provide for recurrent development and dissemination of an integrated DoD SATCOM enterprise solution architecture based on established reference architectures for the SATCOM segments (i.e., DoD SATCOM space-segment, teleport and associated ground infrastructure, management and control, and user terminal resources) to ensure DoD SATCOM enterprise resources remain an enduring, continuously evolving capability. Jointly reviewed and approved recurrent updates to the integrated DoD SATCOM enterprise solution architecture should be timed to preclude, or allow for the correction of, any non-synchronization of the SATCOM segments. Such updates will be informed by, and be consistent with, space-mission force design options for SATCOM space and associated ground systems recommended by the

CSO as force design architect for space systems of the Military Services. Additionally, updates will be informed by business case analysis.

(2) In accordance with content guidance provided by the DoD CIO, the CSO will develop and deliver an annual report on DoD SATCOM usage and expenditures by all DoD Components to inform DoD CIO spend analyses and architecture planning activities in pursuit of IT efficiencies. Scope of the DoD SATCOM usage and expenditure report spans all forms of DoD SATCOM (e.g., DoD-owned and –operated, commercial services, internationally-partnered services). Based on measured or estimated usage levels, this report will segment DoD SATCOM by system and use comparative cost metrics (e.g., cost-per-delivered-bit) to inform decision-making. Each annual report will address commercial SATCOM usage and expenditures over the span of a fiscal year, and will be developed, coordinated, and delivered to the DoD CIO by 180 calendar days following the end of the respective fiscal year.

(3) DISA will develop and employ modeling capabilities comprising scenario-based analyses and stochastic user demand modeling, separately or in combination, as necessary to inform DoD SATCOM architecture planning. User demand modeling will reflect:

(a) Historical DoD SATCOM resource usage.

(b) Planned DoD SATCOM resource fielding (e.g., quantities and schedules for fielding of DoD SATCOM space-segment, teleport and associated ground infrastructure, management and control, and user terminal resources).

(4) In coordination with the Director, DISA, the CSO will conduct regular reviews to gain community-wide visibility into DoD Components’ acquisition and fielding plans and to evaluate progress against taskings and milestones, sufficiency of current and projected funding, and capability synchronization and integration.

(a) These reviews will include assessment of DoD Components’ PPBE activities and inform timely recommendations to achieve and sustain capability synchronization and integration.

(b) Following each review, the CSO will document findings and provide recommended budgetary guidance to the DoD CIO and USSPACECOM for review. The DoD CIO will then provide budgetary guidance in accordance with USSPACECOM SATCOM priority planning guidance, as appropriate, to DoD Components to drive capability synchronization.

(5) DoD SATCOM reference architectures, solution architectures, and acquisition and fielding plans will address:

(a) DoD SATCOM resource functions, performance, and interface criteria necessary for efficient, standards-based, interoperable, resilient, and secure communications.

(b) Synchronization and integration of SATCOM resources, including:

1. The evolution of regional and worldwide demand and capacity over time.

2. Investment efficiency in terms of depreciation of SATCOM assets that cannot be used fully under defined operational conditions due to non-synchronization.

3. Operational constraints resulting from interdependencies with non-synchronized SATCOM resources.

(c) DoD SATCOM mission support needs and capabilities to support those needs.

(d) DoD SATCOM interoperability in accordance with DoDI 8330.01, accounting for existing and planned DoD SATCOM resources and the equipment of joint, combined, and coalition forces, other U.S. Government departments and agencies, and non-governmental organizations.

(e) DoD SATCOM standardization and interoperability with other segments of the DoDIN.

(f) DoD SATCOM resource sharing and interoperability with NATO and other international commitments.

(6) In coordination with DISA, the CSO will conduct analyses to provide insight into, and enable the timely planning and fulfillment of, DoD SATCOM resource modernization, synchronization, integration, and life cycle sustainment. Analyses will:

(a) Assess interoperability among DoD SATCOM resources and between SATCOM resources and the broader communications infrastructure.

(b) Assess DoD SATCOM architecture resiliency to identify risks and shortcomings against current and projected Defense Planning Guidance scenarios and to recommend mitigation approaches, as appropriate.

(c) Assess synchronization and integration of planned SATCOM acquisition and fielding to provide timely insight and identify shortcomings.

(d) Assess suitability of candidate SATCOM resources relative to mission needs, including, but not limited to:

1. Foreign ownership of service providers by designated states of concern.

2. Command and telemetry link encryption.

3. Degree of U.S. control over communications satellite payloads and SATCOM teleports.

(e) Assess sufficiency of proposed inventory targets for DoD SATCOM resources to meet projected demand as informed by DoD SATCOM solution architectures, comprising well-defined, long-term demand (Layer 1) as well as flexible-capacity demand related to the execution of DoD strategic plans (Layer 2).

(f) Include a time component to support re-balancing of planning and programming for DoD SATCOM resources through the FYDP, informed by resource allocation projections provided by the CJCS.

(g) Inform SATCOM Governance Framework forums' (e.g., the Deputy's Management Action Group and CONLC3S) decision-making processes.

c. Acquisition and Fielding.

(1) The DoD Components must:

(a) Conduct DoD SATCOM acquisition and fielding in accordance with the National Security Strategy; National Security Directive 42; DoD security policies, strategy, and guidance; Committee on NSS Policy No. 12; DoDD 5000.01; and DoDIs 4650.01, 5000.02, 8410.03, 8500.01, 8510.01, and 8580.1.

(b) Obtain certification from the NTIA of the Department of Commerce, or the relevant agency designated by the NTIA in accordance with Office of Management and Budget Circular A-11, that required radio frequencies can be made available before submitting estimates for the development or procurement of major electromagnetic spectrum-dependent communications-electronics systems.

(2) Acquisition and fielding of DoD SATCOM resources by and on behalf of DoD Components will be informed by DoD SATCOM reference architectures and solution architectures and by acquisition and fielding plans derived from the architectures.

(3) DoD SATCOM acquisition and fielding approaches and methodologies will include a business case analysis based on assumptions for usage, and will balance cost, operational benefit, and risk. Business case analyses will be conducted and documented in accordance with the October 23, 2014 DoD CIO Memorandum.

(4) DoD Components' use of any SATCOM solution that is owned and operated by a commercial entity must conform to the following provisions as these provisions apply to specific types of systems:

(a) Use contract vehicles awarded and administered by the Commercial Satellite Communications Office (CSCO) for procurement of commercial SATCOM equipment and services.

(b) Proposed DoD Component acquisition and use of commercial SATCOM solutions – whether fixed satellite services, mobile satellite services (MSS), medium Earth orbit systems, low Earth orbit systems, or proliferated low Earth orbit systems – must be accompanied by an explanation indicating:

1. That the contemplated procurement is for a solution intended to become a DoD SATCOM enterprise resource managed by USSPACECOM and available to all DoD Components; or

2. Why the DoD SATCOM enterprise – comprising military, allied, and commercial systems – is unable to support or is inappropriate for the proposed military application. Such proposals will be examined closely by USSPACECOM to verify the DoD SATCOM enterprise is not capable or not suitable to satisfy the user requirement.

(c) DoD Components will procure equipment and services from commercial SATCOM providers that have been determined to appropriately provide transmission security for military users by the preparation and approval of a system transmission security plan and that can be secured by cryptography designed for the processing and transmission of classified information and evaluated and approved by the National Security Agency, in accordance with National Security Directive 42, Committee on NSS Policy No. 12, DoDI 8500.01, Executive Order 14028, and NSM-8.

(d) DoD Components will procure terminal and ancillary equipment and services from commercial providers that can be interconnected with approved cryptographic implementations using cryptographic algorithms designed and approved for the processing and transmission of classified information. The cryptographic solutions used must be evaluated and approved by the National Security Agency, in accordance with National Security Directive 42, Committee on NSS Policy No. 12, DoDI 8500.01, Executive Order 14028, and NSM-8.

(e) DoD Components authorized by the DoD CIO to contract for commercial SATCOM solutions other than through the CSCO must track and report usage and expenditure information to the CSCO for inclusion in DoD SATCOM usage and expenditure annual reporting.

(f) DoD Components that use DoD's enhanced mobile satellite services (EMSS) infrastructure must procure DoD-approved EMSS user equipment through the CSCO's procurement process.

1. Use of alternative MSS solutions (i.e., MSS that does not leverage the EMSS infrastructure and capability investments) will be permitted only when EMSS cannot satisfy the user requirement.

2. For non-EMSS solutions, the provisions of Paragraphs 3.3.c.(4)(c) through 3.3.c.(4)(e) apply.

(5) DoD Components will ensure DoD SATCOM acquisition and fielding includes provisions for monitoring to support validated resource allocation and service management requirements (within, or in conjunction with, all DoD SATCOM resource acquisition contracts) to:

(a) Provide visibility into resource usage relative to transmission plans and reporting of such information.

(b) Support DoDIN end-to-end service management functions, including fault detection and correlation and EMI detection, characterization, geolocation, and mitigation.

(c) Inform architecture planning activities and decisions.

(d) Provide an element management and control capability which is interoperable with, and can share appropriate planning, cybersecurity, configuration, and status information with, the DoD ESC-MC capability.

(6) DoD SATCOM acquisition and fielding decisions will consider the need for equipment certifications, registrations, and licensing.

(a) DoD SATCOM resources, including those obtained from commercial providers, will be assessed and certified in accordance with applicable waveform standards, cybersecurity policy standards, interoperability standards, and performance specifications.

(b) DoD Components will ensure testing programs in support of acquisition and product improvement of SATCOM terminals and other DoD SATCOM resources, (including both DoD SATCOM enterprise resources and SATCOM resources acquired to satisfy Component-specific user requirements) are planned in accordance with DoDI 5000.02 to efficiently accomplish all certifications required and specified under the regulatory framework of the acquisition and fielding process. In coordination with the USD(A&S) and the CJCS, the DoD CIO will ensure that requirements for terminal certification are integrated to the extent practical with interoperability assessment in accordance with DoDI 8330.01, and that objective criteria are defined and followed for determining the scope of terminal certification testing needs.

(c) DoD SATCOM equipment operating systems' configurations will be assessed and certified in accordance with DISA STIGs for DoD IT systems.

(d) DoD-owned SATCOM resources will be registered and licensed to operate in accordance with the Radio Regulations of the ITU.

(e) Commercial SATCOM resources that have not completed the ITU satellite network filing process successfully, or are owned, licensed, or registered by designated states of concern, are prohibited from acquisition consideration.

(7) In coordination with the CJCS, the CDRUSSPACECOM, and the Service Chiefs, DISA will develop and maintain the SATCOM teleport roadmap:

(a) To serve as a basis for acquisition and fielding, including program management, PPBE, and life cycle sustainment for SATCOM teleport resources by all DoD Components.

(b) Accounting for both joint and Component-specific requirements at SATCOM teleports.

(c) Coordinated and submitted to the DoD CIO for approval every 2 years (during March of even-numbered years) to ensure SATCOM teleport investments are:

1. Compliant with applicable DoD SATCOM reference architectures and roadmap products.

2. Synchronized with DoD SATCOM solution architectures developed by the CSO and DoD Components.

(8) DoD SATCOM terminal segment acquisition and fielding information in the SATCOM terminal roadmap will be updated on a regular basis. A comprehensive update will be conducted annually, immediately after the National Defense Authorization Act becomes public law. If the National Defense Authorization Act is not enacted within the first quarter of the fiscal year, the comprehensive update will be conducted no later than 14 months after the preceding comprehensive update. Additional updates will be conducted on a “by-exception” basis following release of the Military Services’ POMs to the Secretary of Defense, or as required to support other events.

(9) The Secretary of the Air Force will designate the DoD Component responsible for managing commercial SATCOM services in contracts acquiring those services.

d. Resource Allocation.

(1) In collaboration with CCMDs and other DoD Components as needed, the Joint Staff will:

(a) Conduct analyses (e.g., capability gap assessments) as necessary to determine the sufficiency of DoD SATCOM resources to meet theater major OPLANs for normal and surge requirements.

(b) Define and maintain resource allocation projections iteratively to inform architecture planning activities, including development and maintenance of DoD SATCOM solution architectures.

(c) Define the processes and procedures for allocation to authorized users of operational DoD SATCOM resources.

1. DoD SATCOM resource allocations will remain consistent with approved user requirements in the SURR.

2. Requests for DoD SATCOM resource allocation absent citation of approved user requirements in the SURR will return to the DoD Component for correction and will not be acted upon.

(2) In collaboration with other DoD Components, USSPACECOM will develop business rules to support automation of resource allocation processes by ESC-MC and element management and control systems, as appropriate.

(3) Resource allocation processes will yield a determination of supportability and, if supportable, an access authorization identifying the selected operational DoD SATCOM resource(s).

(a) DoD SATCOM access authorizations include technical and operational guidance for the management and use of allocated resources.

(b) Implementation and activation of DoD SATCOM resources will include verification of compliance with mission objectives (e.g., availability, performance).

e. Service Management.

(1) The Joint Staff, in collaboration with the CCMDs and other DoD Components as needed, will define the DoD SATCOM situational awareness information necessary for effective DoD SATCOM operational management as a segment of the DoDIN to achieve these outcomes:

(a) DoD SATCOM situational awareness information will inform resource allocation decisions, including issuance of access authorizations, preemption, and SATCOM resource reconfiguration, where applicable.

1. Electromagnetic spectrum monitoring will include regular tracking and reporting of resource usage as compared to respective transmission plans, across all operational DoD SATCOM resources.

2. Traffic monitoring, implemented on a selective basis, as appropriate, will provide insights into resource usage relative to respective resource allocation and inform decision-making.

(b) DoD SATCOM situational awareness information and reporting to DoDIN management systems will support performance management.

(c) DoD SATCOM situational awareness information and reporting to DoDIN management systems will support timely fault detection and correlation and inform corrective actions to prevent a recurrence, as appropriate.

(2) DoD SATCOM service management activities conducted by DoD Components will establish and maintain operational services in accordance with resource allocation decisions and corresponding access authorizations.

(a) DoD Components will implement and maintain a DoD SATCOM service management infrastructure, including tools needed to manage diverse DoD SATCOM resources, in accordance with CJCS guidance.

(b) Upon detection of a DoD SATCOM resource outage or other performance non-compliance, the relevant DoD Component will take steps to restore service, in accordance with CJCS guidance.

(c) DoD SATCOM service management will employ policy-based management solutions hosted on ESC-MC and element management and control systems, where appropriate, to provide for service restoration and dynamic reconfiguration.

(d) Equipment maintenance and technology refreshes will be conducted in a timely manner to maintain uninterrupted DoD SATCOM resource availability. For joint SATCOM teleports, DISA and the Joint Staff will ensure synchronization of refresh plans and other configuration changes through a collaborative coordination process and will elevate unresolved issues to the DoD CIO.

(e) DoD Components will implement clear and effective protocols for communications with DoD users throughout the DoD SATCOM resources' operational life cycle—from resource allocation and initiation of services through service teardown and after-action reporting.

(3) The Joint Staff will maintain correlation of approved user requirements to operational services, accounting for dynamic changes over the life cycle of operational services to ensure operational use remains consistent with approved user requirements.

3.4. REQUESTS FOR WAIVERS OR EXCEPTIONS TO POLICY.

a. Requests for waivers or exceptions to any of the provisions in this policy must be submitted to the DoD CIO via the SATCOM waiver/exception portal. DoD CIO will conduct a comprehensive review of each request to determine the impact of waiving the policy altogether or making an exception to the policy in return for an alternative approach to satisfy the intent of the policy.

b. Requests for waivers or exceptions that are referred to the SSEG by the DoD CIO will be processed as follows:

(1) As directed by the SSEG, an appropriate technical working group (TWG) will evaluate the request and record recommendations. This facilitates a comprehensive evaluation of the impact and ramifications of the waiver or exception to the DoD community and provides access to subject matter experts from organizations that must participate in the evaluation (e.g., National Security Agency for cryptography and cybersecurity waivers or exceptions).

(2) The TWG will evaluate the completeness of the request, the need for outside support, the determination of the pros and cons of granting the requested waiver or exception, and the recommendation and rationale for approval or denial of the request. The results will be summarized in the minutes of the SSEG with supporting documentation from the TWG attached to the SSEG minutes.

GLOSSARY

G.1. ACRONYMS.

ACRONYM	MEANING
AoA	analysis of alternatives
C3LB	Command, Control, and Communications Leadership Board
CCMD	Combatant Command
CDRUSCYBERCOM	Commander, United States Cyber Command
CDRUSSPACECOM	Commander, United States Space Command
CJCS	Chairman of the Joint Chiefs of Staff
CONLC3S	Council on Oversight of the National Leadership Command, Control and Communications System
CSCO	Commercial Satellite Communications Office
CSO	Chief of Space Operations
DISN	Defense Information Systems Network
DISA	Defense Information Systems Agency
DoD CIO	DoD Chief Information Officer
DoDD	DoD directive
DoDI	DoD instruction
DoD IE	DoD information enterprise
DoDIN	Department of Defense information network
EMI	electromagnetic interference
EMSS	enhanced mobile satellite services
ESC-MC	enterprise satellite communications management and control
FYDP	Future Years Defense Program
HNA	host nation agreement
HNCR	host nation coordination request
IT	information technology
ITU	International Telecommunications Union
KPP	key performance parameter
MSS	mobile satellite services
NATO	North Atlantic Treaty Organization
NR	net ready
NSM	National Security Memorandum
NSS	National Security Systems

ACRONYM	MEANING
NTIA	National Telecommunications and Information Administration
OPLAN	operation plan
POM	program objective memorandum
PPBE	Planning, Programming, Budgeting, and Execution
SATCOM	satellite communications
SSEG	Satellite Communications Systems Engineering Group
STIG	security technical implementation guide
SURR	satellite communications user requirements repository
TWG	technical working group
UC	unified capabilities
U.S.C.	United States Code
USD(A&S)	Under Secretary of Defense for Acquisition and Sustainment
USD(I&S)	Under Secretary of Defense for Intelligence and Security
USD(P)	Under Secretary of Defense for Policy

G.2. DEFINITIONS.

Unless otherwise noted, these terms and their definitions are for the purpose of this issuance.

TERM	DEFINITION
access authorization	The formal message sent to assign specific SATCOM resources to authorized users for a specific period of time. An access authorization message includes technical parameters and other information necessary to establish and maintain good order for resource usage.
acquisition and fielding	The process used to obtain and deliver DoD SATCOM resources for operational use, including those resources that enable associated resource allocation and service management capabilities.
acquisition and fielding plans	The set of roadmaps that collectively and comprehensively address the modernization, synchronization, integration, and life cycle sustainment of DoD SATCOM resources consistent with DoD SATCOM solution architectures. These plans serve as a basis for SATCOM PPBE by all DoD Components.

TERM	DEFINITION
adjudication	The appeal process employed as part of the resource allocation functional area that reviews a denied DoD SATCOM request for allocation.
allied partner	Nations and international organizations (e.g., NATO) that participate in U.S.-led operations or exercises based on formal or ad-hoc agreements covering joint operations, including, but not limited to, coalition operations.
allocation projection	DoD SATCOM resource allocation expected to be provided to DoD Components and other authorized users. It informs architecture planning activities (e.g., resource sufficiency analyses). Includes a time component extending through the FYDP to account for projected changes in resource capacity and user demand, incorporating, for instance, all known and planned resource commitments for international partner and cooperation efforts.
architecture	In the absence of other qualifying terms such as “reference” or “solution,” refers generally to the DoD SATCOM architecture.
architecture planning	The collaborative process by which DoD SATCOM space-segment, teleport/ground infrastructure, management and control, and user terminal resources are analyzed in relation to user requirements to inform engineering and business case decisions for SATCOM systems’ acquisition, fielding, and use. Its products include DoD SATCOM reference and solution architectures that inform acquisition and fielding plans and resource allocation.
commercial SATCOM	SATCOM services obtained from commercial entities and operating at frequencies available to those commercial entities.
communications satellite payload	A space-segment SATCOM resource that provides beyond-line-of-sight connectivity for communications and networking services to and from various points on and around Earth.
Component-specific SATCOM teleport	A SATCOM transmission-and-reception capability, equipped with SATCOM terminal(s), networking devices, baseband equipment, and transport devices focused on fulfillment of a DoD Component’s requirement set.
concept plan	Defined in the DoD Dictionary of Military and Associated Terms.

TERM	DEFINITION
configuration management	The administration by a program manager or designated operations and maintenance lead of orderly and effective procedures, processes, assessments, and changes of hardware or software configuration baselines for SATCOM resources. Includes the planning, design, synchronization, integration, and implementation of configuration changes to SATCOM resources, including facilities, infrastructure, and equipment layout, to achieve SATCOM and terrestrial network operational integrity and interoperability for authorized users. Excludes operational settings required specifically to execute operational tasks related to resource allocation and service management.
cyberspace	Defined in the DoD Dictionary of Military and Associated Terms.
DISN	Defined in the DoD Dictionary of Military and Associated Terms.
DoD IE	<p>The DoD information resources, assets, and processes required to achieve an information advantage and to share information across DoD and with allied partners. It includes:</p> <p>The information itself and the DoD’s management over the information life cycle.</p> <p>The processes, including risk management, associated with managing information to accomplish the DoD mission and functions.</p> <p>Activities related to designing, building, populating, acquiring, managing, operating, protecting, and defending the information enterprise.</p> <p>Related information resources such as personnel, funds, equipment, and IT, including internal use software and NSS.</p>
DoDIN	Defined in the DoD Dictionary of Military and Associated Terms.
DoDIN operations	Defined in the DoD Dictionary of Military and Associated Terms.

TERM	DEFINITION
DoD SATCOM	Comprises DoD-owned and -operated SATCOM resources, DoD-owned SATCOM resources operated by non-DoD entities, SATCOM resources acquired by the DoD from commercial providers, and SATCOM resources allocated by the U.S. Government (e.g., Federal, civil SATCOM resources), international partners, or allied partners for DoD use. This definition is independent of any particular state of SATCOM resource allocation, be it to DoD Components or non-DoD entities. SATCOM resources set aside for international partners' use under the terms of a non-equivalent value exchange memorandum of understanding are excluded from this definition.
DoD SATCOM architecture	A set of DoD SATCOM reference architectures and solution architectures that provide context and rules for accomplishing the DoD SATCOM mission. These architectures are developed and maintained at the Department, Capability Area, and Component levels and collectively define the people, processes, and technology required in the "current" and "target" environments. Acquisition and fielding plans describe the transition to the target environment embodied in the DoD SATCOM architecture.
DoD SATCOM enterprise resources	DoD SATCOM resources acquired for use by DoD Components to satisfy joint DoD requirements, including resources acquired by the Military Services pursuant to Sections 7062, 8062, 8063, 9062 and 9081 of Title 10, U.S.C., and designated by the acquiring Military Service for joint use. These are allocated through CJCS-defined processes and procedures. They exclude, at the acquiring DoD Component's discretion, commercial SATCOM services acquired: Via special acquisition authority. Under CCMDs, Military Services, and Defense Agencies program of record. To support research and development initiatives. For rapid fielding of capabilities to mitigate current challenges and enhance support to CCMDs, Military Services, and Defense Agencies.

TERM	DEFINITION
DoD SATCOM reference architectures	Frameworks or structures that describe current and planned DoD SATCOM resources and interface criteria to enable standards-based, interoperable SATCOM resources and integrated network operations as part of the DoDIN. They guide and constrain the development of DoD SATCOM solution architectures.
DoD SATCOM resources	Defined in the January 11, 2021, Deputy Secretary of Defense Memorandum.
DoD SATCOM solution architectures	Frameworks or structures that describe the fundamental organization of a system, embodied in its components, their relationships with each other and the environment, and the principles governing its design and evolution. They are guided and constrained by applicable DoD SATCOM reference architectures and aligned to acquisition and fielding plans.
ESC-MC	DoD SATCOM enterprise top-level management and control system using a service-oriented architecture to provide access to DoD SATCOM enterprise IT services (to one or more SATCOM element networks as well as to various pre-defined user or manager accounts) or assist networks with scheduling and requesting resources from another element service provider. Supports the business and operational functions of the seven core DoD ESC-MC capabilities. ESC-MC functionality encompasses the SURR capability, obviating the need for maintenance, administration, and hosting of a separate SURR tool.
international partner	A nation that has a current, signed international agreement with the U.S. Government authorizing them to jointly produce, receive, provide, or exchange SATCOM resources with the United States.
IT	Defined in Section 11101 of Title 40, U.S.C.

TERM	DEFINITION
IT investment	<p>Expenditures for IT to address mission delivery and management support.</p> <p>May include a project or projects for the development, modernization, enhancement, or maintenance of a single IT asset or group of IT assets with related functionality, and the subsequent operation of those assets in a production environment.</p> <p>Should have a defined life cycle with start and end dates, with the end date representing the end of the currently estimated useful life of the investment consistent with the investment's most current alternatives analysis, if applicable.</p> <p>When the asset(s) is essentially replaced by a new system or technology, the replacement should be reported as a new, distinct investment with its own defined life cycle information.</p>
IT service	<p>An IT capability designed to provide awareness of, access to, and delivery of data or information made available for consumption by one or more users. Users can be an individual, organization, or machine.</p>
joint SATCOM teleport	<p>A joint SATCOM transmission and receive capability installed within the boundary of the real property of a Military Department or hosted user facility, equipped with SATCOM terminals, SATCOM modems, networking devices, baseband and encryption equipment, DISN services and transport devices, and special user transport and managed services to other SATCOM teleport terminals and SATCOM user terminals. Not all joint SATCOM teleports will have the entire complement of the aforementioned equipment. Joint SATCOM teleports provide SATCOM capabilities in satisfaction of two or more DoD Components' requirements.</p>

TERM	DEFINITION
layer	<p>Segmentation of user requirements by degree of demand stability:</p> <p>Layer 1 – Well-defined, long-term, stable requirements that are largely independent of crisis scenarios and changing OPLANs.</p> <p>Layer 2 – Flexible capacity requirements directly related to DoD strategic plans. This layer focuses on SATCOM capacity over critical geographic theaters and addresses DoD’s minimum requirements for intermittent users.</p> <p>Layer 3 – Surge requirements for capacity that might be needed to support crises. These requirements are dynamic, difficult to predict, and may be directly related to world events.</p>
lead	<p>Person or organization designated to collaborate and facilitate coordination across stakeholders, as applicable and appropriate, to ensure unity of effort in satisfying an assigned purpose. Breadth of responsibility may extend beyond collaboration and coordination if so designated in Section 2 (e.g., establishing uniform standards, developing capabilities, hosting capabilities, funding).</p>
MSS	<p>Radio communication between mobile or fixed Earth stations and one or more mobile platforms. MSS satellites provide global service used to deliver communications services (e.g., voice or data, one- or two-way) to mobile users while moving or in remote locations. Terminals range in size from handheld or laptop-size units to larger installations in a vehicle. MSS satellites typically operate at L- or S-band and encompass several types of services including maritime MSS, aeronautical MSS, and land MSS. MSS allocations also exist in the Ka-band, in which new, higher speed services are being offered and planned.</p>
narrowband SATCOM	<p>Narrowband SATCOM resources provide reliable, secure, fixed-site and mobile data and voice communications not subject to adverse weather conditions, dense foliage, terrain masking, distance limitations, and interoperability problems. Narrowband SATCOM resources typically operate in the ultrahigh frequency, L-, and S-bands.</p>

TERM	DEFINITION
non-synchronized	The schedules and funding for the acquisition and delivery of program segments (i.e., space-segment, teleport/ground infrastructure, management and control, and user terminal resources), or related program(s) necessary for end-to-end system operational capability indicate a failure to meet defined synchronization criteria.
NSS	In accordance with Executive Order 14028, NSS will include those systems defined as NSS in Section 3552(b)(6) of Title 44, U.S.C., as well as all other DoD and Intelligence Community systems described in Sections 3553(e)(2) and 3553(e)(3) of Title 44, U.S.C.
operation order	Defined in the DoD Dictionary of Military and Associated Terms.
OPLAN	Defined in the DoD Dictionary of Military and Associated Terms.
positive terminal control	The continuous ability to oversee SATCOM access and coordinate necessary changes in the frequency, channel, power level, waveform, antenna pointing, or network when not under emission control conditions.
protected SATCOM	Uncompromised connectivity via satellite resources, across multiple bands and constellations, to achieve assured communications. Capabilities include defeating the anti-access area denial threat through electromagnetic spectrum, frequency hopping (anti-jam), advanced timing, increased power, beam shaping, nulling, advanced modems, etc., that provide the necessary means to operate through jamming or scintillation environments without degradation to the quality of service and securing information dominance and mission assurance.
requirements management	The capabilities, processes, and tools that yield detailed insight into current and future DoD SATCOM user requirements. Requirements management support the detailed planning and operational use of current DoD SATCOM resources (i.e., resource allocation and service management), as well as supporting architecture planning for future DoD SATCOM capabilities, programming and budgeting decisions, and acquisition program decisions.

TERM	DEFINITION
resiliency	An architecture’s ability to support the functions necessary for mission success despite hostile action or adverse conditions. An architecture is considered “more resilient” if it can provide these functions with higher probability, shorter periods of reduced capability, or across a wider range of scenarios, conditions, and threats.
resource allocation	The capabilities, processes, and tools that authorize operational use of DoD SATCOM resources in accordance with approved user requirements. Includes actions taken to assign power and bandwidth to authorized users, configure communications satellite payloads, and establish operational parameters for use of DoD SATCOM resources.
SATCOM	The use of satellites to provide beyond-line-of-sight communications and networking services (including relay and amplification of data, messaging, video, and voice signals) to and from various points on and around Earth.
SATCOM resources	People, facilities, organizations, and IT resources, including NSS, that collectively form and enable the SATCOM segment of the DoDIN. SATCOM resources are deployed in all physical warfighting domains (i.e., land, maritime, air, and space) and perform communications functions in the cyberspace warfighting domain. Includes communications satellite payloads; SATCOM teleports and terminals; communications satellite payload and terminal control systems; and all SATCOM-related systems, capabilities, services, networks, applications, personnel, and funds. Unless otherwise stated, the term “SATCOM resources” applies to components that provide communications capabilities (i.e., communications satellite payload) and excludes other spacecraft equipment and systems.
SATCOM segment of the DoDIN	The SATCOM segment of the DoDIN is a part of the DoDIN and comprises the set of all DoD SATCOM resources, as described in the January 11, 2021, Deputy Secretary of Defense Memorandum.
SATCOM space-segment roadmap	An authoritative, comprehensive repository of DoD SATCOM space-segment acquisition and fielding information. A key information source for communications scenario development, sufficiency analyses, and other analyses related to DoD SATCOM modernization, synchronization, integration, and life cycle sustainment.

TERM	DEFINITION
SATCOM teleports	The collective set of joint, Component-specific, commercial, and international partner teleports. A SATCOM teleport provides a transmission and receive capability equipped with SATCOM teleport terminal(s), networking devices, baseband equipment, and transport devices. SATCOM teleports may also include resident spacecraft control capabilities.
SATCOM teleport roadmap	An authoritative, comprehensive repository of SATCOM teleport acquisition and fielding information. A key information source for communications scenario development, sufficiency analyses, and other analyses related to DoD SATCOM modernization, synchronization, integration, and life cycle sustainment.
SATCOM teleport terminal	SATCOM terminals providing a spacecraft control or communications anchoring capability. These are typically, but not exclusively, characterized as large, fixed, ground terminals located at SATCOM teleports. This definition also considers mission in the case of transportable terminals used as a contingency in lieu of large, fixed, ground terminals.
SATCOM terminal	IT equipment at the endpoint of a SATCOM link providing a transmit and/or receive capability. A SATCOM terminal comprises one or more of each of the following: radiating and/or receiving element, amplification, modulators and demodulators, interfaces to users or networks, cybersecurity policy implementation, and management and control interface. SATCOM terminals may also include, as applicable, feed assembly, pedestal mount, antenna control, frequency converters, and local or element-level management and control capability. The component parts of a SATCOM terminal need not be co-located.
SATCOM terminal roadmap	An authoritative, comprehensive repository of DoD SATCOM terminal-segment acquisition and fielding information. A key information source for communications scenario development, sufficiency analyses, and other analyses related to DoD SATCOM modernization, synchronization, integration, and life cycle sustainment.
SATCOM user terminal	SATCOM terminals used in any warfighting domain by deployed forces.
scenario-based analyses	Analyses addressing fixed operational scenarios to determine the sufficiency of SATCOM resources relative to user requirements.

TERM	DEFINITION
service management	The capabilities, processes, and tools that manage the operational use of allocated DoD SATCOM resources consistent with an access authorization. Includes monitoring, reporting, and control of the systems and equipment providing those services.
situational awareness	Access to comprehensive and timely fault, configuration, accounting, performance, and security information to inform operational DoD SATCOM resource management (i.e., resource allocation and service management).
state of concern	Any country that is designated a state sponsor of terrorism (accessible online at https://www.state.gov/state-sponsors-of-terrorism/), and any states subject to comprehensive economic sanctions or selective sanctions linked to space-related technology.
stochastic user demand modeling	Modeling based on historical usage data (segmented by user types, regions, and missions, as necessary, to gain essential insights) to quantify and characterize expected future warfighter demand and quantify demand uncertainty.
strategic plan	A plan for the overall conduct of a war including, but not limited to, OPLANs, concept plans, and operation orders.
SURR	An authoritative, comprehensive repository of current and future user requirements for DoD SATCOM resources. A key information source for communications scenario development, sufficiency analyses, user demand modeling, and other analyses to support, for instance, satellite replenishment planning. The SURR instantiation includes the SATCOM Database. However, future instantiations of the SURR will be developed and delivered as part of the ESC-MC capability.
terminal certification	An evaluation requirement established by the operational community, in coordination with DoD Components heads responsible for terminal acquisition and fielding, to augment, as necessary, the results of interoperability assessment and testing in accordance with DoDI 8330.01. The process provides the basis for a determination by the operational community and connection approval authorities that DoD SATCOM resources, primarily terminals and modems and associated antennas, radomes, and other radio frequency and intermediate frequency components, will operate with the intended operational SATCOM system in accordance with applicable military standards.

TERM	DEFINITION
transmission security	Defined in the DoD Dictionary of Military and Associated Terms.
UC	Defined in DoDI 8100.04.
UC transport	Defined in DoDI 8100.04.
user requirement	Communications needs, including connectivity, throughput, and related operational capabilities that must be addressed to satisfy specific mission objectives. These are submitted by the SATCOM user community, recorded in the SURR, and used as a comprehensive catalog of demand that may be applied to specific operational scenarios to inform DoD SATCOM architecture planning and resource allocation.
wideband SATCOM	Wideband SATCOM resources provide substantial worldwide capacity for high-quality voice, imagery, video, and data transport, operating in the C-, X-, Ku-, and Ka-bands. Wideband SATCOM systems provide the primary transmission path for much of the DoD's highest-priority communications.

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² Accessible online at <https://www.cnss.gov/CNSS/issuances/Policies.cfm>

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