



## DoD INSTRUCTION 8420.02

### DoD SATELLITE COMMUNICATIONS

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<b>Originating Component:</b>	Office of the Chief Information Officer of the Department of Defense
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<b>Approved by:</b>	John Sherman, Acting DoD Chief Information Officer

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

- Establishes policy, assigns responsibilities, and provides direction for the planning, acquisition, fielding, allocation, management, and use of satellite communication (SATCOM) resources as a component of the DoD information enterprise (DoD IE).
- Affirms 2017 Unified Command Plan (UCP) reassignment of the cyberspace operations mission from United States Strategic Command to United States Cyber Command.
- Affirms 2017 UCP Change-1 recognition of the establishment of United States Space Command and reassignment of space operations mission from United States Strategic Command to United States Space Command.
- Affirms Under Secretary of Defense for Acquisition, Technology, and Logistics reorganization pursuant to Sections 133a and 133b of Title 10, United States Code (U.S.C.).
- Affirms disestablishment of the Defense Space Council.
- Affirms reassignment of commercial satellite communications (COMSATCOM) services procurement responsibility from Defense Information Systems Agency (DISA) initially to Air Force Space Command, pursuant to Section 1601 of Public Law 115-91, and subsequently to the newly-established United States Space Force pursuant to Subtitle D of Title IX of Public Law 116-92.

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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, 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 Title 5, U.S.C., Appendix, also known and referred to in this issuance as the “Inspector General Act of 1978.”

### 1.2. POLICY.

It is DoD policy that:

a. DoD SATCOM resources constitute the SATCOM segment of the DoD information network (DODIN) and, within the cyberspace domain, must be operated and protected as part of the DoD IE.

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 SATCOM enterprise management and control will evolve as an integral part of DoD IE management and control to foster efficiency and operational resiliency.

d. DoD SATCOM resource management comprises the requirements management, architecture planning, acquisition and fielding, resource allocation, service management, and sustainment functional areas, as defined herein. Operational aspects of DoD SATCOM resource management are encompassed within the resource allocation and service management functional areas.

e. When foreign parties are involved in DoD SATCOM requirements management, architecture planning, acquisition and fielding, resource allocation, service management, and sustainment, 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 that 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 Chief Information Officer (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 provide detailed insight into current and future warfighter needs.

(1) Approved user requirements will inform, and constitute a basis for, architecture planning, acquisition and fielding, and resource allocation decisions.

(2) User requirements will be stored in an authoritative, comprehensive repository (herein referred to as the “SATCOM user requirements repository” (SURR)) for:

(a) SATCOM resource access by any DoD user.

(b) DoD SATCOM resource access by any non-DoD user.

h. DoD SATCOM architecture planning will be informed by user requirements and current system functional availability reports (FARs); inform replenishment decisions; help synchronize acquisition and fielding of DoD SATCOM resources; and maximize operational utility for authorized users.

(1) The DoD SATCOM architecture will describe and foster an interoperable, secure, resilient, joint DoD IE that utilizes shared information technology (IT) infrastructure, enterprise services, and single security architecture. It will 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 cost effectiveness, resiliency, and mission needs.

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

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

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

(2) The DoD must 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, and DoDI 8500.01.

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

(a) Remain in accordance with DoDIs 5000.02T, 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) Satisfy additional testing and certification to demonstrate readiness for operational use as intended.

(5) Satellite orbital slots, spectrum allocations, host nation agreements (HNAs), and other access agreements established through international engagement forums or government-to-government negotiations must be defended, preserved and, where necessary, expanded.

(6) Acquisition and fielding must include provisions for usage monitoring and situational awareness information, (e.g., fault, configuration, accounting, performance, and security information) as necessary, to provide visibility into resource usage relative to allocation and support validated service management requirements, including DoD SATCOM enterprise management and control.

j. DoD SATCOM resources must be allocated to authorized users in conformance with approved user requirements.

k. DoD SATCOM service management must be integrated into all levels of DODIN management to ensure responsiveness in meeting dynamic mission needs.

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

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

(3) Electromagnetic interference (EMI) detection, characterization, geolocation, and mitigation capabilities will be employed to meet validated service management requirements and foster the resilience goal of operating through EMI, whether intentional, inadvertent, or environmental.

l. The DoD will give full consideration to innovative and non-traditional SATCOM capabilities offered by the commercial industry. The implementation of such capabilities must

address interoperability, resiliency, transparency, accountability, funding, and training consistent with DoD requirements.

### **1.3. INFORMATION COLLECTIONS.**

The COMSATCOM usage and expenditure annual report, referred to in Paragraphs 2.1.1., 2.5.b., and 2.9.b.(1)., has been assigned report control symbol DD-USAF-2700 in accordance with the procedures in Volume 1 of DoD Manual 8910.01. The expiration date of this information collection is listed on the DoD Information Collections Website at [https://www.esd.whs.mil/Directives/collections\\_int/](https://www.esd.whs.mil/Directives/collections_int/).

## SECTION 2: RESPONSIBILITIES

### 2.1. DOD CIO.

The DoD CIO:

- a. Provides strategy and policy on the operation and protection of the SATCOM segment of the DODIN in the cyberspace domain, including:
  - (1) Development and publication of DoD SATCOM enterprise architecture requirements and technical standards.
  - (2) Enforcement, operation, and maintenance of DoD SATCOM systems, interoperability, collaboration, and interface between DoD and non-DoD systems.
- b. Provides guidance and oversight for DoD SATCOM network operations, including:
  - (1) Standards for defense and protection.
  - (2) Support to military and joint missions.
  - (3) Standards for resiliency and reliability.
- c. Establishes policy and provides oversight for all DoD SATCOM networks that support unified capabilities (UC) and UC transport in accordance with DoDI 8100.04.
- d. Assesses, in coordination with the Under Secretary of Defense for Acquisition and Sustainment (USD(A&S)), the integration and synchronization of DoD SATCOM activities and resources within the DoD IE, in accordance with DoDD 8000.01. Identifies integration and synchronization issues, and provides guidance and change actions, as necessary, to the Secretary of Defense, Deputy Secretary of Defense, DoD Component heads, and senior decision and advisory forums, in accordance with DoDD 5105.79.
- e. Defines, in coordination with the USD(A&S) and the CJCS, synchronization criteria, including the metrics required to gain insight into DoD SATCOM resource synchronization, and provides guidance for the measurement, analysis, and reporting of those metrics.
- f. Defines standards for developing and maintaining DoD SATCOM reference architectures and roadmap products as necessary to align DoD SATCOM with the Joint Information Environment for effective DoD SATCOM resource management.
- g. Coordinates with and assists the Under Secretary of Defense for Intelligence and Security (USD(I&S)), 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 in accordance with Secretary of Defense responsibilities pursuant to Executive Order 12333.

h. Incorporates into DoD SATCOM reference architectures those capabilities necessary to satisfy user requirements and achieve efficiencies including, but not limited to, interoperability requirements, management, and control.

i. Conducts DoD SATCOM architecture analyses to determine sufficiency of DoD SATCOM resources to meet user demand (considering approved requirements in the SURR, demand modeling, operational resource commitments, and resource allocation projections provided by the CJCS).

j. Develops, in coordination with the USD(A&S), DoD SATCOM reference architectures to inform acquisition and fielding decisions and space architecture activities that support and enable the SATCOM segment of the DODIN.

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

l. Provides, in coordination with the CJCS, guidance to DoD Components for reporting COMSATCOM usage and expenditures.

m. Reviews and approves the consolidation and establishment of new enterprise SATCOM gateways and transfer of enterprise SATCOM gateways and associated strategic SATCOM terminals among and between Military Departments and Defense Agencies.

n. Reviews, in coordination with the USD(A&S), the Director of Cost Assessment and Program Evaluation, and the CJCS, approved user requirements associated with programs of record and DoD SATCOM reference architectures to inform program decisions.

o. Defines, in coordination with the USD(A&S) and the CJCS, 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.

p. Leads, in coordination with the Under Secretary of Defense for Policy, DoD SATCOM international cooperation efforts. In cooperation with international partners, coordinates DoD SATCOM activities including, but not limited to, serving as the lead for North Atlantic Treaty Organization (NATO) SATCOM activities and participating in standardization agreements development and interoperability efforts through representational functions at NATO committees and working groups.

q. Reviews requests from DoD Components for waiver of the provisions in this issuance in coordination with other stakeholders, as applicable, and provides disposition on such requests.

r. Provides policy guidance, in consultation with the USD(I&S) and the USD(A&S), to the National Security Agency regarding network operations and cybersecurity matters in support of the DoD SATCOM enterprise.



## 2.2. DIRECTOR, DISA.

Under the authority, direction, and control of the DoD CIO, in addition to the responsibilities in Paragraph 2.5., and in accordance with DoDD 5105.19, the Director, DISA:

- a. Administers the SURR of current and future user requirements for the CJCS.
- b. Pursuant to DoD CIO guidance and in coordination with the CJCS, the Commander, United States Space Command, and the Commander, United States Cyber Command, performs DoD SATCOM user demand modeling to inform architecture planning activities.
- c. Performs, in coordination with DoD Components, systems engineering and provides systems engineering support for the SATCOM segment of the DODIN to ensure DoD SATCOM resources are planned, operated, maintained, managed, and improved effectively and efficiently to satisfy interoperability and mission requirements.
- d. Provides enterprise-level SATCOM development, integration, and management services (including DoD SATCOM enterprise management and control) and support for interagency, strategic, allied, multinational, coalition, joint, and combined command, control, and combat support capabilities in accordance with command and control responsibilities assigned in DoDD 5105.19.
- e. Helps the CJCS identify 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.
- f. Leads, in coordination with the CJCS and the Military Services, development and maintenance of the Joint Information Environment SATCOM gateway technical architecture description and a DoD enterprise SATCOM gateway implementation, integration, and execution plan (SGIIEP) that complies with DoD SATCOM reference architectures and related solution architectures to serve as a basis for program management, planning, programming and budgeting and life cycle sustainment for enterprise SATCOM gateway resources by all DoD Components. Submits the plan and updates to the DoD CIO and the USD(A&S) annually for approval.
- g. Develops and maintains the approved products list of certified products that provide UC over the SATCOM segment of the DODIN.
- h. 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.
- i. Maintains and directs a major field independent operational test capability through the Joint Interoperability Test Command for operational test and evaluation in accordance with DoDD 5000.01 and DoDI 5000.02T.
- j. 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 -controlled networks.

k. Establishes security requirements in the development of DISA security technical implementation guides (STIGs) for U.S. DoD IT Systems that provide UC over the SATCOM segment of the DODIN, and verifies compliance with such STIGs during assessments or inspections.

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

m. Conducts actions to obtain, defend, and renew HNAs for all strategic SATCOM terminals at enterprise SATCOM gateways, in accordance with SGIIEP office of primary responsibility assignments.

n. Performs, in coordination with the CJCS and the Military Services, configuration management of all enterprise SATCOM gateway resources acquired and sustained under responsibilities herein, and leads coordination of enterprise SATCOM gateway configuration management actions by all DoD Components.

### 2.3. USD(A&S).

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

a. Ensures that DoD SATCOM resource acquisition is in accordance with DoDDs 5000.01 and 5134.01 and DoDIs 5000.02T and 8580.1.

b. Provides procedures, guidance, and program direction on DoD SATCOM resource acquisition through acquisition decision memorandums.

c. Evaluates all SATCOM programs that contribute to the National Leadership Command Capability and addresses any related critical gaps as co-chair of the Council on Oversight of the National Leadership Command, Control and Communications System (CONLC3S), as pursuant to Section 171a of Title 10, U.S.C.

d. Oversees all Acquisition Category I – Defense Acquisition Board SATCOM programs to ensure that those programs deliver to their required capabilities.

e. Assesses synchronization and funding for the acquisition and delivery of operational components necessary to achieve SATCOM programs' full operational capability, and identifies instances of non-synchronized programs.

f. Provides, in coordination with the DoD CIO, reports to congressional defense committees on integration of acquisition and fielding schedules for segments of major SATCOM acquisition programs (i.e., satellites, ground equipment, and user terminals, including those provided by related programs, necessary to fully exploit capabilities enabled by satellites) and funding for such programs.

g. Provides acquisition oversight of Acquisition Category I – Defense Acquisition Board DoD SATCOM resources, as defined herein, and inter-program dependencies on DoD SATCOM resources to ensure the maximum practical degree of synchronization and timely acquisition and fielding to meet warfighter needs.

h. Designates lead for acquisition of SATCOM resources designated as major defense acquisition programs, in accordance with DoDI 5000.02T.

#### **2.4. USD(I&S).**

The USD(I&S) coordinates with and assists the DoD CIO, USD(A&S), 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.

#### **2.5. DOD COMPONENT HEADS.**

The DoD Component heads:

a. Submit current and future user requirements in accordance with the CJCS-defined process for formulation, submission, review, and approval of user requirements in the SURR.

b. Prepare and submit to the Chief of Space Operations, COMSATCOM usage and expenditure information in accordance with content guidance provided by the DoD CIO.

c. Ensure that the DoD SATCOM resource acquisition and fielding activities under their purview include:

(1) Alignment to DoD SATCOM reference architectures developed and maintained by the DoD CIO in coordination with the USD(A&S).

(2) Development and maintenance of applicable documentation, including concepts of operations, initial capabilities documents, capability development documents, the four mandatory (energy, system survivability, force protection, and sustainment) key performance parameters (KPP), and the net ready (NR) performance attribute for DoD Component IT, in accordance with CJCS Instruction 5123.01H and DoDI 8330.01. The force protection and system survivability KPPs include kinetic, electromagnetic spectrum, and cyber survivability requirements for endorsement, unless formally waived.

(3) Provisions for systems' regular reporting of situational awareness information consistent with CJCS guidance.

d. Plan, program, and budget for development, acquisition, and sustainment of enterprise SATCOM gateway resources, in accordance with the DoD enterprise SGIIEP.

e. Budget and provide funding for COMSATCOM services (including, but not limited to, acquisition of COMSATCOM services to meet well-defined, long-term demand). Report acquisition of COMSATCOM services as an IT investment and provide a business case analysis for acquisition approach in accordance with DoDD 8000.01 and DoDI 8115.02.

f. Prepare and submit all COMSATCOM resource acquisition requests to the Chief of Space Operations for approval, citing the applicable approved user requirement(s).

g. Prepare and submit all COMSATCOM contract modification requests to the Chief of Space Operations for approval, or as alternatively provided for in COMSATCOM services contracts.

h. Perform actions to obtain, defend, and renew HNAs for tactical SATCOM terminal use.

i. Ensure that DoD SATCOM resource allocation and service management activities include timely reporting of situational awareness information consistent with CJCS guidance.

j. Operate allocated DoD SATCOM resources consistent with access authorizations and respective user requirements, establishing access and restoral priorities for all subordinate units in accordance with appropriate strategic plans as defined herein, including, but not limited to, operation plan (OPLAN), concept plan, operation order, or mission requirements.

k. Plan, develop, implement, and execute NetOps functions across DoD Component-controlled portions of the DODIN, in accordance with DoDI 8410.02.

l. Designate, in coordination with the CJCS, types of configuration changes or operational sustainment actions that will or 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 enterprise SATCOM gateways, to inform the planning for and execution of these types of actions. This includes, but is not limited to, equipment fielding, site modifications, significant funding or manning decrements, or other actions that might impact DoD SATCOM operations.

## **2.6. SECRETARIES OF THE MILITARY DEPARTMENTS.**

In addition to the responsibilities in Paragraph 2.5., the Secretaries of the Military Departments:

a. Develop Military Department-level SATCOM operational concepts, procedures, and solution architectures that align with DoD SATCOM reference architectures.

b. Prepare and submit Military Department-specific projected SATCOM user requirements to the SURR in accordance with the CJCS-defined process for formulation, submission, review, and approval of user requirements.

c. Identify to the USD(A&S), DoD CIO, CJCS, and Military Departments, through the planning, programming, budgeting, and execution process, the details and effects of budget

decrements, fiscal shortfalls, and funding redistributions on current and future SATCOM resources.

d. Allocate COMSATCOM services acquired by the Military Department that are not DoD SATCOM enterprise resources, and ensure timely reporting of situational awareness information for those resources consistent with CJCS guidance.

e. Perform operations and maintenance and, in coordination with the CJCS and DISA in respect to enterprise SATCOM gateways, perform facility configuration management of Military Department-controlled facilities that host SATCOM gateways, in accordance with Sections 7062, 8062, 8063, 9062, and 9081 of Title 10, U.S.C.

## **2.7. SECRETARY OF THE ARMY.**

In addition to the responsibilities in Paragraphs 2.5. and 2.6., the Secretary of the Army:

a. Organizes, trains, equips, and provides forces, as directed, in accordance with DoDD 5100.01, for:

(1) Systems comprising the communications satellite payload control segment of DoD-owned and -controlled wideband SATCOM resources.

(2) Army ground SATCOM terminals (including mission-specific SATCOM gateways) and Army airborne SATCOM terminals. Coordinates with designated satellite acquisition components and terminal installation offices to ensure implementation of all user capability requirements those terminals are intended to provide.

b. Develops, in coordination with DISA, tools and planning processes that manage user access to communications satellite payloads of narrowband and wideband DoD SATCOM resources.

## **2.8. SECRETARY OF THE NAVY.**

In addition to the responsibilities in Paragraphs 2.5. and 2.6., the Secretary of the Navy:

a. Organizes, trains, equips, and provides forces, as directed, in accordance with DoDD 5100.01, for:

(1) DoD-owned and -controlled narrowband SATCOM space-segment resources.

(2) Systems comprising the communications satellite payload control segment of DoD-owned and -controlled narrowband SATCOM resources.

(3) Navy shipborne, submarine, shore (including mission-specific SATCOM gateways), and naval aircraft SATCOM terminals. Coordinates with designated satellite acquisition components and terminal installation offices to ensure implementation of all user capability requirements those terminals are intended to provide.

b. Develops annual FARs, using assumptions based on DoD SATCOM reference architectures issued by the DoD CIO, detailing the status of narrowband SATCOM space segment components, including availability status and end-of-life projection, and provides the resulting product to the DoD CIO, USD(A&S), and CJCS.

## **2.9. SECRETARY OF THE AIR FORCE.**

a. In addition to the responsibilities in Paragraphs 2.5. and 2.6., the Secretary of the Air Force:

(1) Organizes, trains, equips, and provides forces, as directed, in accordance with DoDD 5100.01, for:

(a) DoD-owned and -controlled protected SATCOM space-segment resources.

(b) DoD investment (through procurement and capital lease) in DoD SATCOM enterprise resources comprising wideband SATCOM space-segment resources that operate in federal and non-federal frequency bands.

(c) Systems comprising the communications satellite payload control segment of DoD-owned and -controlled protected SATCOM resources.

(d) Air Force ground and airborne terminals, strategic ground command post, and strategic nuclear command, control, and communications SATCOM terminals (including mission-specific SATCOM gateways). Coordinates with designated satellite acquisition components and terminal installation offices to ensure implementation of all user capability requirements those terminals are intended to provide.

(e) Space support mission functions pertaining to all DoD-owned SATCOM resources.

(2) Develops, in coordination with DISA, tools and planning processes that manage user access to communications satellite payloads of protected DoD SATCOM resources.

(3) Develops annual FARs, using assumptions based on DoD SATCOM reference architectures issued by DoD CIO, detailing the status of protected SATCOM space segment and wideband SATCOM space segment components, including availability status and end-of-life projection, and provides the resulting product to the DoD CIO, USD(A&S), and CJCS.

b. In coordination with the Chief of Space Operations:

(1) Collects data in accordance with DoD CIO guidance, conducts COMSATCOM operational usage and expenditure analyses to identify procurement and usage inefficiencies, identifies opportunities for cost savings, and documents the resulting data and findings in COMSATCOM usage and expenditure annual reports.

(2) Serves as the lead for acquisition of COMSATCOM services to meet the needs of DoD Components, consistent with approved user requirements and funding provided by the requesting DoD Component.

(3) Helps DoD Components specify and document their technical requirements for COMSATCOM resources to inform acquisition and fielding.

(4) Ensures that COMSATCOM resource acquisition includes provisions requiring COMSATCOM resource providers to help the DoD detect, geolocate, and mitigate EMI.

(5) Helps DoD Components coordinate actions to obtain, defend, and renew HNAs for tactical SATCOM terminal use.

## 2.10. CJCS.

In addition to the responsibilities in Paragraph 2.5., and in coordination with the other DoD Component heads, the CJCS:

a. Defines processes and procedures for the formulation, submission, review, and approval of user requirements, including mechanisms to address urgent or short-duration needs.

b. Provides near-term resource allocation projections to the DoD CIO for use in architecture planning, spanning the current year through the Future Years Defense Program 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 authoritative guidance and studies.

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

d. Performs, in coordination with DISA and the United States Space Force, SATCOM gateway architecture operational impact assessments and provides recommendations to the DoD CIO.

e. Evaluates and certifies SATCOM programs that contribute to the National Leadership Command Capability as co-chair of the CONLC3S.

f. Helps the DoD CIO and Military Services review approved user requirements associated with programs of record against the DoD SATCOM reference architectures to inform program decisions.

g. Provides specific guidance on preparation, format, content, timelines for submission, and review of the four mandatory (energy, system survivability, force protection, and sustainment) KPPs, and the NR performance attribute for SATCOM terminals to ensure that testing required by acquisition regulations, interoperability requirements, and IT standards minimizes time and cost of additional certification processes. Serves as certification authority for the four mandatory (energy, system survivability, force protection, and sustainment) KPPs and the NR performance

attribute, in accordance with CJCS Instruction 5123.01H and DoDI 8330.01, for all SATCOM terminals designated as Joint Requirements Oversight Council Interest, Joint Capabilities Board Interest, or for Joint Integration by the Joint Staff Gatekeeper.

h. Identifies DoD SATCOM situational awareness information requirements, including network management data priorities, necessary for effective DODIN management, including, but not limited to, the configuration and operational status of all DoD SATCOM resources. Provides such information as guidance to DoD Components responsible for DoD SATCOM resource acquisition and fielding, resource allocation, and service management.

i. Obtains situational awareness information related to the configuration and operational status of DoD SATCOM resources, and makes this information available to authorized users and other stakeholders in near real-time to support the planning, implementation, and sustainment of SATCOM resources.

j. Defines processes and procedures for the allocation of DoD SATCOM enterprise resources to authorized users consistent with approved user requirements in the SURR.

k. Defines the process for escalation and resolution of resource allocation contention arising between DoD SATCOM users, and acts as the final adjudication authority on such matters.

l. Provides guidance for the content, preparation, and issuance of access authorizations (as well as changes authorizations and preemptions, as applicable).

m. Assesses resource allocation metrics and, in coordination with DoD CIO, implements enforcement mechanisms to improve compliance with user requirements and transmission plans, correct deficiencies, and improve efficiency.

n. Defines DoD SATCOM service management processes and procedures necessary to establish and maintain operational services consistent with resource allocation decisions and corresponding access authorizations.

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

p. 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.

q. 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.

r. Maintains oversight of operational SATCOM activities and resources supporting Presidential and DoD requirements at all levels of conflict.

s. Establishes requirements for information sharing over SATCOM with coalition partners.



t. 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.

u. Ensures that CJCS instructions and publications addressing SATCOM are updated and consistent with the policy and guidance in this issuance and coordinated with the DoD CIO.

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

## **2.11. COMMANDER, UNITED STATES SPACE COMMAND.**

In addition to the responsibilities in Paragraph 2.5., the Commander, United States Space Command's responsibility for DoD SATCOM resource management is derived from the following UCP space operations responsibilities:

a. Planning and execution of global space operations activities and missions as directed by the President or the Secretary of Defense.

b. Serving as the single point of contact for military space operational matters, to U.S. Government agencies, U.S. commercial entities, and international agencies for matters related to military space operations, except as otherwise directed by the President or the Secretary of Defense.

c. Providing space capabilities such as SATCOM to Combatant Commands, allies, and other entities, as directed by the President or the Secretary of Defense.

## **2.12. COMMANDER, UNITED STATES CYBER COMMAND.**

In addition to the responsibilities in Paragraph 2.5., the Commander, United States Cyber Command's responsibility for DoD SATCOM resource management is derived from the UCP cyberspace operations responsibility for directing DODIN security, operations, and defense.

## SECTION 3: PROCEDURES

### 3.1. GENERAL.

a. Matters related to compliance with SATCOM policy guidance, IT implementation, or adherence to prescribed standards that cannot be resolved within lower level forums or decision processes will be referred to the Command, Control, and Communications Leadership Board (C3LB). The C3LB is the Department's designated principal governance forum for oversight of command, control, and communications transport, including satellite-based communications, in accordance with the DoD C3LB Charter. The C3LB will elevate issues, as appropriate, to existing Defense Acquisition System, Joint Requirements Oversight Council, and planning, programming, budgeting and execution decision processes and senior advisory forums.

b. The procedures in this section apply to all DoD SATCOM resources except where specifically noted.

### 3.2. REQUIREMENTS MANAGEMENT.

a. The Joint Staff will direct and maintain the CJCS-defined processes and procedures for the formulation, submission, review, and approval of user requirements to inform architecture planning and resource allocation activities.

b. DISA will administer the SURR as the authoritative repository for approved user requirements. SURR content must include:

(1) Both 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.

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

d. The Joint Staff will define and maintain an SURR waiver process.

(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.

### 3.3. ARCHITECTURE PLANNING.

a. COMSATCOM usage and expenditure information will be collected by DoD Components and reported by the United States Space Force annually to provide visibility into usage patterns over time (e.g., usage by mission, frequency bands of operation, regions) and to inform DoD CIO spend analyses and other architecture planning activities in pursuit of IT efficiencies.

b. 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:

(1) Historical DoD SATCOM resource usage.

(2) Planned DoD SATCOM resource fielding (e.g., quantities and schedules for fielding of satellites, SATCOM gateways, and user terminals).

c. In coordination with the USD(A&S) and CJCS, the DoD CIO will:

(1) Conduct analyses, as necessary, to provide insight into, and enable the timely planning and fulfillment of, DoD SATCOM resource modernization, replenishment, and replacement needs. Analyses will assess:

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

(b) DoD SATCOM enterprise resiliency to identify risks and shortcomings and recommend mitigation approaches, as appropriate.

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

(2) Scope, develop, and maintain enterprise-level DoD SATCOM reference architectures and roadmap products, as necessary, for effective DoD SATCOM resource planning. DoD SATCOM architecture and roadmap products will:

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

(b) Provide timely visibility into the synchronization of SATCOM resources. Synchronization analysis will address:

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 utilized fully under defined operational conditions due to non-synchronization.

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

(c) Provide timely visibility into DoD SATCOM mission support needs and capabilities to support those needs.

(d) Address DoD interoperability requirements 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) Account for DoD SATCOM standardization and interoperability with other segments of the DODIN.

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

(3) Develop and issue DoD SATCOM reference architectures. This will be done at least annually in support of the program budget review process. DoD SATCOM reference architectures:

(a) Will assess resiliency and security in determining suitability of candidate SATCOM resources relative to mission needs, including, but not limited to: foreign ownership of service providers by designated nations of concern; command link encryption; and degree of U.S. control over communications satellite payloads and SATCOM gateway landing sites.

(b) Will propose “inventory” targets for DoD SATCOM resources sufficient to meet projected demand (as informed by DoD SATCOM reference 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)).

(c) Must include a time component to support re-balancing of planning and programming for DoD SATCOM resources through the Future Years Defense Program, informed by resource allocation projections provided by the CJCS.

(d) Will inform SATCOM Governance Framework forums, such as the Deputy’s Management Action Group and CONLC3S for nuclear command and control communications related activities.

### **3.4. ACQUISITION AND FIELDING.**

a. The DoD Components must:

(1) Conduct DoD SATCOM acquisition and fielding in accordance with DoDD 5000.01 and DoDIs 5000.02T and 8580.1.

(2) Conduct DoD SATCOM acquisition and fielding in accordance 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, and DoDI 8500.01.

(3) Conduct DoD SATCOM acquisition and fielding in accordance with DoDIs 8410.03, 4650.01, and 5000.02T.

(4) Obtain a certification by the National Telecommunications and Information Administration of the Department of Commerce, or your agency as designated by the National Telecommunications and Information Administration, 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 radio spectrum-dependent communications-electronics systems.

b. Acquisition of DoD SATCOM resources by and on behalf of DoD Components should be informed by DoD SATCOM reference architectures formulated as a product of architecture planning.

(1) DoD SATCOM acquisition and fielding approaches and methodologies will include a business case analysis based on assumptions for utilization, and will balance cost, operational benefit, and risk. The Enterprise IT BCA Template construct, defined in the October 23, 2014 DoD CIO Memorandum, will be used to ensure a standardized approach and criteria for analyzing IT investments.

(2) Use of mobile satellite services (MSS) to satisfy DoD user requirements will conform to the following:

(a) DoD Components with a requirement for MSS must:

1. Use contract vehicles prescribed by the United States Space Force, for procurement of MSS equipment and services.

2. Leverage DoD's enhanced mobile satellite services (EMSS) infrastructure and capability investments by procuring DoD-approved EMSS user equipment through the United States Space Force's procurement process. 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.

3. For non-EMSS solutions, procure equipment and services from MSS providers 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, and DoDI 8500.01.

(b) United States Space Force will track and report MSS usage and expenditures annually to the DoD CIO. DoD Components authorized, by a DoD CIO-approved exception, to contract for MSS other than through the United States Space Force must track and report usage and expenditure information to the United States Space Force for inclusion in COMSATCOM usage and expenditure annual reporting.

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

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

(2) Support DODIN end-to-end service management functions, including fault detection and correlation and EMI detection, geolocation, and mitigation.

(3) Inform architecture planning activities and decisions.

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

(1) DoD SATCOM resources will be assessed and certified as compliant with applicable standards and specifications, including, but not limited to, waveform standards, cybersecurity policy standards, interoperability standards, and performance specifications.

(2) DoD Components will ensure that testing programs in support of acquisition and product improvement of SATCOM terminals and other DoD SATCOM resources, including component-sponsored commercial products, are planned in accordance with DoDI 5000.02T to efficiently accomplish all certifications required and specified under the regulatory framework of the acquisition and fielding process. The DoD CIO, in coordination with the USD(A&S) and CJCS, 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.

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

(4) DoD-owned SATCOM resources will be registered and licensed to operate in accordance with the Radio Regulations of the International Telecommunications Union.

(5) COMSATCOM resources that have not completed the International Telecommunications Union registration process successfully, or are licensed or registered by designated nations of concern, are precluded from acquisition consideration.

e. United States Space Force will ensure that contractual provisions for acquisition of COMSATCOM services include designation of DoD Component responsibility for managing those resources.

### **3.5. RESOURCE ALLOCATION.**

a. The Joint Staff will:

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

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

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

(a) DoD SATCOM resource allocations must remain consistent with approved user requirements in the SURR.

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

(4) Define the process for escalation and resolution of resource allocation contention arising between DoD SATCOM users and act as the final adjudication authority.

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

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

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

### **3.6. SERVICE MANAGEMENT.**

a. The Joint Staff will define the DoD SATCOM situational awareness information necessary for effective management of the SATCOM segment of the DODIN to achieve the following outcomes:

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

(a) Spectrum monitoring must include regular tracking and reporting of bandwidth usage as compared to respective transmission plans, across all operational DoD SATCOM resources.

(b) Traffic monitoring, implemented on a selective basis, as appropriate, will provide insights into resource usage (e.g., characterizing type of traffic relative to the respective allocation) and inform decision-making.

(2) DoD SATCOM situational awareness information and reporting to DODIN management systems will support performance management and timely communications fault correlation and resolution.

(3) Causes for DoD SATCOM resource outage or other performance non-compliance will be thoroughly investigated, and corrective actions taken to prevent a recurrence.

b. DoD SATCOM service management activities conducted by DoD Components must establish and maintain operational services consistent with resource allocation decisions and corresponding access authorizations.

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

(2) Upon detection of a DoD SATCOM resource outage or other performance non-compliance, service restoral must be accomplished in a timely manner, in accordance with CJCS guidance.

(3) DoD SATCOM service management will employ policy-based management solutions, where appropriate, to provide service restoral and dynamic reconfiguration, as necessary.

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

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

c. The Joint Staff will maintain correlation of approved user requirements to operational services, accounting for dynamic changes over the lifecycle of operational services to ensure that operational use remains consistent with approved user requirements.



## GLOSSARY

### G.1. ACRONYMS.

ACRONYM	MEANING
C3LB	Command, Control, and Communications Leadership Board
CJCS	Chairman of the Joint Chiefs of Staff
COMSATCOM	commercial satellite communications
CONLC3S	Council on Oversight of the National Leadership Command, Control and Communications System
DISA	Defense Information Systems Agency
DoD CIO	DoD Chief Information Officer
DoD IE	DoD information enterprise
DoDD	DoD directive
DoDI	DoD instruction
DODIN	DoD information network
EMI	electromagnetic interference
EMSS	enhanced mobile satellite services
FAR	functional availability report
HNA	host nation agreement
IT	information technology
KPP	key performance parameter
MSS	mobile satellite services
NATO	North Atlantic Treaty Organization
NR	net ready
NSS	National Security Systems
OPLAN	operation plan
SATCOM	satellite communications
SGIIEP	satellite communications gateway implementation, integration, and execution plan
STIG	security technical implementation guide
SURR	satellite communications user requirements repository
UC	unified capabilities
UCP	Unified Command Plan

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

## G.2. DEFINITIONS.

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

<b>TERM</b>	<b>DEFINITION</b>
<b>access authorization</b>	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.
<b>acquisition and fielding</b>	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.
<b>adjudication</b>	The appeal process employed as part of the resource allocation functional area that reviews a denied DoD SATCOM request for allocation.
<b>allied partner.</b>	Those nations and international organizations (such as 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.
<b>allocation projection</b>	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). Include a time component extending through the Future Years Defense Program 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.
<b>architecture planning</b>	The collaborative process by which SATCOM space segment, control segment, and terminal segment components 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 architectures to inform acquisition and fielding decisions and resource allocation.

<b>TERM</b>	<b>DEFINITION</b>
<b>commercial SATCOM gateway.</b>	A SATCOM transmission and receive capability owned by a commercial provider and equipped with SATCOM terminal(s), networking devices, baseband equipment, and transport devices.
<b>communications satellite payload</b>	Space segment SATCOM resource (i.e., communications mission package) that provides beyond-line-of-sight connectivity to provide communications and networking services to and from various points on and around Earth.
<b>configuration management</b>	The administration by a cognizant 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.
<b>concept plan</b>	Defined in the DoD Dictionary of Military and Associated Terms.
<b>cyberspace</b>	Defined in the DoD Dictionary of Military and Associated Terms.
<b>cyberspace operations</b>	Defined in the DOD Dictionary of Military and Associated Terms.
<b>Defense Information Systems Network</b>	A composite of DoD-owned and -leased telecommunications subsystems, networks, and capabilities comprising facilities, personnel, and materiel under the management, control, and operational direction of DISA. Provides the long-haul, point-to-point, and switched network telecommunications needed to satisfy the requirements of the DoD and certain other U.S. Government departments and agencies. Its services interconnect the CJCS and the Combatant Commanders with general purpose networks. Its assets are part of the Defense Communications System and are the DoD's national security emergency preparedness communications assets within the U.S. Government-wide national communications system.
<b>DoD IE</b>	Defined in DoDD 8000.01.

<b>TERM</b>	<b>DEFINITION</b>
<b>DoD SATCOM</b>	Comprises DoD-owned and -controlled SATCOM resources, DoD-owned SATCOM resources controlled 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.
<b>DoD SATCOM enterprise management and control</b>	Describes the DoD SATCOM enterprise top-level management and control system that uses 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/manager accounts) or assists networks with scheduling and requesting resources from another element service provider. Supports the business and operational functions of the seven core DoD SATCOM enterprise management and control capabilities (integrated data storage management, provide SA information, enterprise network management to element management communications, identify and access management services, DoD SATCOM enterprise modeling and analytics, network access control, and multi-vendor network element management service).
<b>DoD SATCOM enterprise resources</b>	DoD SATCOM resources acquired for joint use by DoD Components, including resources acquired by 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, COMSATCOM services acquired:  Via special acquisition authority.  Under Combatant Commands, 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 Combatant Commands, Military Services, and Defense Agencies.

<b>TERM</b>	<b>DEFINITION</b>
<b>DoD SATCOM reference architectures</b>	An authoritative federation of descriptions of current and planned DoD SATCOM resources and interface criteria to enable standards-based, interoperable SATCOM resources and integrated NetOps as part of the DODIN. They guide and constrain instantiations of DoD SATCOM solution architectures.
<b>DoD SATCOM resources</b>	DoD-owned and -controlled SATCOM resources, DoD-owned SATCOM resources controlled 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.
<b>DoD SATCOM solution architectures.</b>	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.
<b>DODIN</b>	Defined in the DOD Dictionary of Military and Associated Terms.
<b>DODIN operations.</b>	Defined in the DOD Dictionary of Military and Associated Terms.
<b>enterprise SATCOM gateway</b>	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, Defense Information Systems Network services and transport devices, and special user transport and managed services to other strategic and tactical SATCOM terminals. Not all enterprise SATCOM gateways will have the entire complement of the aforementioned equipment.
<b>international partner</b>	A nation that has a current, signed international agreement with the U.S. Government authorizing it to jointly produce, receive, provide, or exchange with the United States SATCOM resources in a particular SATCOM frequency band.
<b>IT</b>	Defined in Section 11101 of Title 40, U.S.C.

<b>TERM</b>	<b>DEFINITION</b>
<b>layer</b>	<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>
<b>mission-specific SATCOM gateway</b>	<p>A SATCOM transmission and receive capability operating under the operational management and control of a Military Service, equipped with SATCOM terminal(s), networking devices, baseband equipment, and transport devices.</p>
<b>MSS</b>	<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 (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>
<b>narrowband SATCOM</b>	<p>Current, planned, and future SATCOM resources operating in the ultrahigh frequency, L-, and S-bands. Provides 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.</p>
<b>NetOps</b>	<p>Defined in DoDI 8410.02.</p>
<b>non-synchronized</b>	<p>Schedules and funding for the acquisition and delivery of program segments (i.e., space segment, control segment, and terminal segment), or related program(s) necessary for end-to-end system operational capability fail to meet defined synchronization criteria.</p>
<b>NSS</b>	<p>Defined in Section 3552 of Title 44, U.S.C.</p>

<b>TERM</b>	<b>DEFINITION</b>
<b>OPLAN</b>	Defined in the DOD Dictionary of Military and Associated Terms.
<b>operation order</b>	Defined in the DOD Dictionary of Military and Associated Terms.
<b>positive terminal control</b>	The continuous ability to oversee SATCOM access and coordinate necessary changes in the frequency, channel, power level, or network.
<b>protected SATCOM</b>	Uncompromised connectivity via satellite resources to achieve assured communications. Capabilities include defeating the anti-access area denial threat through spectrum, frequency hopping (anti-jam), advanced timing, increased power (anti-scintillation), 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/mission assurance.
<b>requirements management</b>	The capabilities, processes, and tools that yield detailed insight into current and future DoD SATCOM user requirements and documents those requirements in the SURR.
<b>resiliency</b>	The ability of an architecture to support the functions necessary for mission success in spite of 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. Resilience may leverage cross-domain or alternative interagency, commercial, or international capabilities.
<b>resource allocation</b>	The capabilities, processes, and tools that authorize operational use of DoD SATCOM resources consistent with approved user requirements. Includes actions taken to assign power and bandwidth to authorized users, configure satellite payloads, and establish operational parameters for use of DoD SATCOM resources.
<b>SATCOM</b>	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 or around the Earth.
<b>SATCOM gateway</b>	The collective set of enterprise, mission-specific, and commercial SATCOM gateways.

<b>TERM</b>	<b>DEFINITION</b>
<b>SATCOM resources</b>	IT resources, including NSS that collectively form and enable the SATCOM segment of the DODIN. SATCOM resources are deployed in all physical warfighting domains (land, sea, air, and space) and perform communications functions in the cyberspace domain. Includes communications satellite payloads; SATCOM gateways and terminals; communications satellite payload and terminal control systems; and all communications-related systems, capabilities, services, networks, applications, personnel, and funds. When applied to the space segment, the term “SATCOM resources” applies to components that provide communications capabilities (i.e., SATCOM payload) and excludes other spacecraft equipment and systems.
<b>scenario-based analyses</b>	Analyses addressing fixed operational scenarios to determine the sufficiency of SATCOM resources relative to user requirements.
<b>service management</b>	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, including space segment and terminal segment SATCOM resources.
<b>space support</b>	Defined in DoDI 3100.12.
<b>situational awareness</b>	Access to comprehensive and timely fault, configuration, accounting, performance, and security information to inform operational DoD SATCOM resource management (that is, resource allocation and service management).
<b>stochastic user demand modeling</b>	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.
<b>strategic plan</b>	A plan for the overall conduct of a war. Includes OPLANs, concept plans, and operation orders.



<b>TERM</b>	<b>DEFINITION</b>
<b>strategic SATCOM terminal</b>	Large, fixed, ground terminal not shipboard or in direct support of ground transportable forces. This includes all large, fixed, ground terminals located at enterprise SATCOM gateways. For the purpose of prioritizing strategic terminals, this definition also considers mission in the case of transportable terminals used as a contingency in lieu of large, fixed, ground terminals, or for large transportable terminals used for strategic missions.
<b>SURR</b>	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 current SURR software instantiation is the SATCOM Database.
<b>tactical SATCOM terminal</b>	Transportable or mobile ground, airborne, or shipboard terminals in direct support of deployed forces.
<b>terminal certification</b>	An evaluation requirement established by the operational community, in coordination with DoD Components 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.
<b>UC</b>	Defined in DoDI 8100.04.
<b>UC transport</b>	Defined in DoDI 8100.04.
<b>user requirement</b>	Individual SATCOM connectivity needs applicable to postulated mission objectives. These are submitted by the 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.
<b>wideband SATCOM</b>	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 DoD's highest-priority communications.

## REFERENCES

- “Charter for Department of Defense (DoD) Command, Control, and Communications Leadership Board (C3LB),” October 15, 2019
- Chairman of the Joint Chiefs of Staff Instruction 5123.01H, “Charter of the Joint Requirements Oversight Council (JROC) and Implementation of the Joint Capabilities Integration and Development System (JCIDS),” August 31, 2018
- Committee on National Security Systems Policy No. 12, “National Information Assurance Policy for Space Systems Used to Support National Security Missions,” February 2018<sup>1</sup>
- Defense Information Systems Agency Security Technical Implementation Guides for U.S. DoD Information Technology Systems, current edition
- DoD Chief Information Officer Memorandum, “Commercial Satellite Communications Operations Security Guidance,” August 8, 2018
- DoD Chief Information Officer Memorandum, “Use of Enterprise Information Technology Standard Business Case Analysis,” October 23, 2014
- DoD Directive 5000.01, “The Defense Acquisition System,” September 9, 2020
- DoD Directive 5100.01, “Functions of the Department of Defense and Its Major Components,” December 21, 2010, as amended
- DoD Directive 5105.19, “Defense Information Systems Agency (DISA),” July 25, 2006
- DoD Directive 5105.79, “DoD Senior Governance Councils,” May 19, 2008
- DoD Directive 5135.02, “Under Secretary of Defense for Acquisition and Sustainment (USD(A&S)),” July 15, 2020
- DoD Directive 5144.02, “DoD Chief Information Officer (DoD CIO),” November 21, 2014, as amended
- DoD Directive 5230.11, “Disclosure of Classified Military Information to Foreign Governments and International Organizations,” June 16, 1992
- DoD Directive 8000.01, “Management of the Department of Defense Information Enterprise (DoD IE),” March 17, 2016, as amended
- DoD Instruction 2040.02, “International Transfers of Technology, Articles, and Services,” March 27, 2014, as amended
- DoD Instruction 3100.12, “Space Support,” September 14, 2000
- DoD Instruction 3222.03, “DoD Electromagnetic Environmental Effects (E3) Program,” August 25, 2014, as amended
- DoD Instruction 4630.09, “Communications Waveform Management and Standardization,” November 23, 2020
- DoD Instruction 4650.01, “Policy and Procedures for Management and Use of the Electromagnetic Spectrum,” January 9, 2009, as amended
- DoD Instruction 5000.02T, “Operation of the Defense Acquisition System,” January 7, 2015, as amended
- DoD Instruction 8100.04, “DoD Unified Capabilities (UC),” December 9, 2010

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<sup>1</sup> <https://www.cnss.gov/CNSS/issuances/Policies.cfm>

DoD Instruction 8115.02, “Information Technology Portfolio Management Implementation,” October 30, 2006

DoD Instruction 8310.01, “Information Technology Standards in the DoD,” February 2, 2015, as amended

DoD Instruction 8320.07, “Implementing the Sharing of Data, Information, and Information Technology (IT) Services in the Department of Defense,” August 3, 2015, as amended

DoD Instruction 8330.01, “Interoperability of Information Technology (IT), Including National Security Systems (NSS),” May 21, 2014, as amended

DoD Instruction 8410.02, “NetOps for the Global Information Grid (GIG),” December 19, 2008

DoD Instruction 8410.03, “Network Management (NM),” August 29, 2012, as amended

DoD Instruction 8500.01, “Cybersecurity,” March 14, 2014, as amended

DoD Instruction 8580.1, “Information Assurance (IA) in the Defense Acquisition System,” July 9, 2004

DoD Manual 8910.01, Volume 1, “DoD Information Collections Manual: Procedures for DoD Internal Information Collections,” June 30, 2014, as amended

Executive Order 12333, “United States Intelligence Activities,” December 4, 1981, as amended

National Security Directive 42, “National Policy for the Security of National Security Telecommunications and Information Systems,” July 5, 1990

Office of Management and Budget Circular A-11, “Preparation, Submission and Execution of a Budget,” current edition

Office of the Chairman of the Joint Chiefs of Staff, “DOD Dictionary of Military and Associated Terms,” current edition

Office of the President of the United States, “National Security Strategy,” December 2017

Office of the President of the United States, “Unified Command Plan,” November 3, 2017, as amended

Public Law 115-91, Section 1601, “National Defense Authorization Act for Fiscal Year 2018,” December 12, 2017

Public Law 116-92, “National Defense Authorization Act for Fiscal Year 2020,” December 20, 2019

Radio Regulations of the International Telecommunications Union (ITU), current edition

Title 5, United States Code

Title 10, United States Code

Title 40, United States Code

Title 44, United States Code