

MPR 2800.2
REVISION H-1
EFFECTIVE DATE: January 11, 2016
EXPIRATION DATE: June 20, 2021

MARSHALL PROCEDURAL REQUIREMENTS

IS01

MSFC INFORMATION TECHNOLOGY SERVICES *With Change 1 (1/12/2021)*

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DOCUMENT HISTORY LOG

Status (Baseline/ Revision/ Change/ Canceled)	Document Revision/ Change	Effective Date	Description
Baseline		3/16/01	Establishes the responsibilities and procedures/guidelines for information technology services provided by the Information Services Department at MSFC.
Revision	A	11/21/2003	Invalid "Applicable Documents" were deleted. Reference documents that were applicable were moved under "P.4 Applicable Documents" and deleted from "P.5 References." MPD 1150.1 was added as an Applicable Document. The definition of an IT Manager was added. "ISD" was replaced with "the Office of the CIO" throughout. Infrastructure, Basic and Augmented services are no longer referenced. Web page references and related information was updated in Paragraph 3.1.1. Web Services was combined with Applications Services and accordingly Chapter 4 deleted. Mission Data Reduction is no longer offered as a service and accordingly Chapter 7 was deleted. A new paragraph was added under each service (except Chapter 6, "IT Procurement Services," to address the responsibility for IT security plans for each service. Other miscellaneous edits were applied.
Revision	B	09/27/2004	Document revised to bring into compliance with the Headquarters Rules Review Action. In paragraph 3.1.1, revised Web page references and replaced OCIO's with OITM's. In paragraph 3.1.3.1, deleted "PrISMS" and replaced with "UNITeS" and changed "TMR" to "DOCOTR". In Chapter 3, deleted "IAN" and replaced with "LAN" and updated maximum LAN service to 100 megabits.
Revision	C	03/23/2007	Administrative changes to update Organization Code on cover and headers (from AD30 to IS01) and update CIO Web site URLs. References to Center Operations Directorate were removed. Updated reference to MPD 2800.1 Appendix A. Removed NASA-STD 2815 under P.4 "Applicable Documents" and added MSFC Delivery Order for ODIN and IS01-OWI-003, "Contractor Evaluation Process and Contractor Interactions." Updated "P.6 Cancellation" reference. Added definition of MSFC Asset Management System to "Document Content," "1. Definitions," and moved the definition of ODIN from Chapter 1 to "Document Content," "1. Definitions." Removed reference to COSMIS in paragraph 3.1.1 and added reference to CIO Web Page for ordering services. Removed all references to "One Stop Shop" throughout the document; and where applicable, it was replaced by a reference to the CIO Web Page. Added description of records. Updated the definition of "COTS" in CH1.1. Updated the size for electronic e-mail accounts from 20 megabytes to 100 megabytes in the table under CH1.2.1.1. Updated the URL for the ODIN Web Page in CH1.3. Added operating system patches and critical updates to the "Desktop Computer Upgrades" in CH1.2.1.1 and to definition of "System Administration" in CH2.1.3. Revised the definitions of Firewall and MSFC LAN in Chapter 3. Added the service of wireless LAN in table under

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			CH3.2.1.1. Updated “Protective Services Department” to “Protective Services Office” throughout CH3.2. “OCIO” was replaced with “OITM or ITM” in CH6.2.2.2. Compliance and Usability Board was added as a service in CH5.2.1.1. Added a requirement in CH5.2.1.5 for registering applications and Web sites in an electronic inventory maintained by the Office of the CIO. Other minor editorial updates were made throughout the document. 2.2.1, additional justification required for equipment and services beyond standard offerings. Responded to organizational grammatical feedback. Added section 1.6 definition for UNITEs.
Revision	D	10/01/2008	Revised 2. Applicability statement to address the applicability of this directive to the Michoud Assembly Facility.
Revision	E	07/29/2009	Revised to incorporate “or designee” as tasked by Supervisor Workload Study team.
Revision	F	12/20/2012	MPR 2800.2 Rev F establishes the requirements and defines the responsibilities for provisioning of Marshall Space Flight Center (MSFC) Information Technology (IT) services provided by the MSFC Office of the Chief Information Officer (OCIO). MPR 2800.2 represents a complete rewrite of MPR 2800.2 Rev E and incorporates/consolidates of seven (7) IS directives into a single IT services MPR. The directives consolidated include: MPD 2210.1O-1, MSFC Documentation Repository with Change 1 (10/24/11), dated March 21, 2008; MID 2800.1, End-User Computing Devices, dated October 27, 2011; MPR 1490.1O, Printing, Reproduction, and Self-Service Copying Services, dated October 20, 2008; MPR 2500.1E, Marshall Telecommunications and Audio Visual Services, dated July 29, 2009; MPR 2800.2E, Marshall Information Technology (IT) Services, dated July 29, 2009; and MPR 2800.4D, Marshall Operational Readiness Review (MORR) for Center Applications and Websites, and MWI 1520.1 Rev F. Graphics and Publication Production Services. Redundant requirements have been removed. Specific chapters have been established for MSFC IT Investment Planning, General IT Services Provisioning, End User Services, Network and Telecommunications Services, Radio and Radio Frequency Services, Applications and Web Services, Printing/Reproduction and Self-Service Copying Services, Data Center Services, Audio Visual Information Services, MORR for Center Applications and Websites, and Documentation Repository Services.
Change	1	9/17/2013	On 9/17/2013, at the request of the OPRD, an administrative change was made to correct the title to MWI 2210.1, MSFC Repository Documentation Processing, which was changed in Rev G of MWI 2210.1. Corrected URL links within Applicable Documents List (nn), and in sections 7.8.2 and 7.10.5. Corrected outdated references to SRS system to show MISM (Sections 4.4.3, 8.8.2, 7.8.3.1, 7.8.13.1, 7.9.4.1, D.3.1, and Acronyms).
Change	2	2/3/2014	On 2/3/14, at the request of the OPRD, an administrative change was made to update the titles in Chapter 11 for MPR 8070.1 and MPR 1600.1. Also changed MWI 1380.1 to MPR 1380.4.
Revision	G	6/20/2014	Review limited to changes of sections listed below. Revision G includes minor changes to requirements in Sections 4.3/4.4, 6.1, 7.2.11, 7.3.2, 7.3.2.1, 7.3.4, 7.3.5, 7.8.8 (deleted), 7.8.13.1,

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			7.8.13.2. In Section 4.3, OITMs were added in addition to Telecommunications Coordinators for Section 4.3. Cleaned up Acronym list, adding ESD and removing SRS. Made numerous editorial cleanups to Applicable/Authority/Referenced documents/numbers to bring those current.
Revision	H	1/11/2016	Updated the definitions of Information Technology (IT) and Information Technology Resources (ITR) per OMB M-15-14 dated 06/10/15. Added new Federal Information Technology Acquisition Reform Act (FITARA) requirements. Updated a number of URL's;
Change	1	1/12/2021	On 1/12/21, at the request of the OPRD and approval of the Center Directives Manager, an administrative change was made in accordance with MPR 1410.2 to extend the expiration date from January 11, 2021 to June 20, 2021 deferring review of this directive until the MAP KDP milestones planned for the first half of calendar 2021 are completed.

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PREFACE

P.1 PURPOSE

- a. To establish requirements and define responsibilities for provisioning Marshall Space Flight Center (MSFC) Information Technology (IT) services provided by the MSFC Office of the Chief Information Officer (OCIO), as required by NASA Policy Directive (NPD) 2800.1, NASA Procedural Requirements (NPR) 2800.1, Marshall Policy Directive (MPD) 2800.1, the Clinger-Cohen Act of 1996, and the Federal IT Acquisition Reform Act (FITARA).
- b. Requirements identified by this MPR establish how MSFC will implement policy to manage the IT services portfolio as a set of integrated end-to-end services in order to improve security, efficiency, and collaboration, while engaging MSFC Directorates/Offices to utilize Center IT contracts managed by the OCIO, to the maximum extent possible.

P.2 APPLICABILITY

- a. This MPR applies to Center personnel, programs, projects, and activities, including contractors and resident agencies to the extent specified in their respective contracts or agreements. “Contractors,” for the purposes of this paragraph include contractors, grantees, Cooperative Agreement recipients, Space Act Agreement partners, or other agreement partners.
- b. This MPR applies to the Michoud Assembly Facility (MAF).
- c. This MPR applies the following: all mandatory actions (i.e., requirements) are denoted by statements containing the term “shall.” The terms “may” or “can” denote discretionary privilege or permission; “should” denotes a good practice and is recommended, but not required; “will” denotes expected outcome; and “are/is” denotes descriptive material.
- d. This MPR applies the following: all document citations are assumed to be the latest version unless otherwise noted.
- e. The definitions in MPD 2800.1 apply to this MPR.
- f. The definitions of Information Technology Resources (ITR) and IT as defined within Office of Management and Budget (OMB) M-15-14 Management and Oversight of Federal Information Technology, dated June 10, 2015, apply to this MPR.
- g. This MPR applies to all IT and information resources, including highly specialized IT.

P.3 AUTHORITY

- a. NPD 2800.1, “Managing Information Technology”

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- b. NPR 2800.1, “Managing Information Technology”
- c. MPD 2800.1, “Management of Information Technology and Services at MSFC”

P.4 APPLICABLE DOCUMENTS AND FORMS

- a. Federal Information Technology Acquisition Reform Act (FITARA), Title VIII, Subtitle D of the National Defense Authorization Act (NDAA) for Fiscal Year 2015, Pub. L. No. 113-291
- b. Federal Information Security Modernization Act of 2014
- c. Management and Oversight of Federal Information Technology, OMB M-15-14
- d. The Freedom of Information Act, 5 U.S.C. § 552
- e. Electronic and Information Technology, 29 U.S.C. § 794 (d), Section 508 of the Rehabilitation Act of 1973, as amended
- f. Information Technology Management, 40 U.S.C. §11101 *et seq*, Clinger-Cohen Act of 1996
- g. Strengthening Federal Environmental, Energy, and Transportation Management, E.O. 13423
- h. Federal Leadership in Environmental, Energy, and Economic Performance, E.O. 13514
- i. Availability of Agency Records to Members of the Public, 14 C.F.R. Part 1206
- j. The NASA Seal and Other Devices, and the Congressional Space Medal of Honor, 14 CFR Section 1221.1
- k. FAR Subpart 39.2 – Electronic and Information Technology
- l. FAR 52.204-4, “Printed or Copied Double-Sided on Postconsumer Fiber Content Paper”
- m. NFS 1804.7301, “Procurement Requests-General”
- n. NFS 1808.802, “Acquisition of Printing and Related Supplies - Policy”
- o. NPD 1490.1, “NASA Printing, Duplicating, and Copying Management”
- p. NPD 9070.1 1490.6, “Business Cards”
- q. NPD 2530.1, “Monitoring or Recording of Telephone or Other Conversations”

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- r. NPD 2540.1, “Personal Use of Government Office Equipment Including Information Technology”
- s. NPD 2570.5, “NASA Electromagnetic Spectrum Management”
- t. NPR 1441.1, “NASA Records Management Program Requirements”
- u. NRRS 1441.1, “NASA Records Retention Schedule”
- v. NPR 1600.1, “NASA Security Program Procedural Requirements”
- w. NPR 2810.1, “Security of Information Technology”
- x. NPR 7150.2, “NASA Software Engineering Requirements”
- y. MPR 1380.4, “Handling of Freedom of Information Act Requests”
- z. MPR 1440.2, “MSFC Records Management Program”
- aa. MPR 1551.1, “Mail Management and Distribution”
- bb. MPR 2190.1, “MSFC Export Control Program”
- cc. MPR 8070.1, “Administration of MSFC Technical Standards and MSFC Standard Data Requirements Descriptions”
- dd. MWI 2210.1, “MSFC Repository Documentation Processing”
- ee. MWI 5113.1, “Government-wide Commercial Purchase Card Operating Procedures”
- ff. MWI 8540.2, “Green Purchasing Program”
- gg. “Grant and Cooperative Agreement Manual (GCAM)”
- hh. NASA-STD-2804, “Minimum Interoperability Software Suite”
- ii. NASA-STD-2805, “Minimum Hardware Configurations”
- jj. STD/MA-RPMR, “Reproduction and Printing Management Reports”
- kk. NASA Form 1707, “Special Approvals and Affirmations of Requisitions”
- ll. MSFC Form 4481, “Key Operator and Reproduction Sign”

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mm. MSFC Form 4609, “Request for Exemption From Information Technology (IT) Requirement in MPR 2800.2”

nn. IEEE Safety Standard C95.1, “Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz”

oo. IEEE 801.11 Wireless Standard, “Standard for Information Technology—Telecommunications and Information Exchange Between Systems Local and Metropolitan Area Networks”

pp. NASA Style Guide, published at http://communications.nasa.gov/OCPToolKit_lib/pdf/1048620main_1021337main_NASastyleguide_complete_012709TAGGED.pdf

P.5 MEASUREMENT/VERIFICATION

None

P.6 CANCELLATION

MPR 2800.2 H, “Marshall Information Technology Services,” dated January 11, 2016.

Original signed by

Todd A. May
Acting Director

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CHAPTER 1. RESPONSIBILITIES

1.1 The MSFC Office of the Chief Information Officer:

1.1.1 Establishes and maintains IT policy, procedures, guidelines, milestones, and review gates that govern planning and provisioning of IT services at MSFC.

1.1.2 Advises and assists the Center Director, MSFC governing councils, MSFC organizations and end users with regard to IT strategy, policy, architecture, investment planning and budgeting, IT security, and service provisioning.

1.1.3 Ensures effective communication and dissemination of National Aeronautics and Space Administration (NASA) IT Program activities and OCIO strategies, plans, activities, and performance.

1.1.4 Develops and implements standardized processes, methods, and frameworks to provide efficient and effective utilization of Center IT resources.

1.1.5 Manages the IT Infrastructure Applications and IT Infrastructure Services (End-User Services, Communications Services, and Data Center Services) components of the Center's IT portfolio.

1.1.5.1 Manages the IT infrastructure as an integrated end-to-end service to improve security, efficiency, and collaboration.

1.1.6 Ensures alignment of all IT applications within the Center enterprise architecture in order to drive standardization and efficiency, and provide visibility and insight into highly-specialized applications and infrastructure.

1.1.7 Prepares and submits annually to the MSFC IT Strategy and Investment Board (ITSIB), a consolidated Center IT Master Plan that represents the Center's prioritized, planned development, modernization, and enhancement (DME) and steady state (SS) IT investment requirements.

1.1.8 Ensures application and implementation of requirements within the Common Baseline for IT Management per OMB Memorandum M-15-14 – Management and Oversight of Federal Information Technology, dated June 10, 2015:

1.1.8.1 In conjunction with Center/Agency leadership, develops processes to plan an overall portfolio of IT resources that are needed to achieve program and business objectives and

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develops sound estimates of necessary IT resources for accomplishing those objectives.

1.1.8.2 Approves the IT components of any plan, through a process defined by the Center/Agency, in order to balance IT investments with other uses of Agency funding.

1.1.8.3 Collaborates and works with the CFO and Agency CIO to review and approve major IT investment portions of budget requests.

1.1.8.4 Establishes and maintains a process to regularly engage with program/project managers to evaluate IT resources supporting each Agency strategic objective.

1.1.8.5 Serves as a member of governance boards that include IT resources (including shadow IT or hidden IT).

1.1.8.6 Reviews cost estimates of IT related cost and ensures acquisition strategies and plans leverage acquisition initiatives such as, shared services, category management, strategic sourcing, and incremental or modular contracting as appropriate.

1.1.8.7 Conduct periodic reviews and evaluations of IT resources and recommend as appropriate the modification, pause, or termination of any acquisition, investment, or activity that includes a significant IT component based on the CIO's evaluation, within the terms of relevant contracts and applicable regulations.

1.1.8.8 Considers the following factors when reviewing acquisition strategies and plans:

- a. Appropriateness of contract type.
- b. Appropriateness of IT related portions of statement of need or statement of work.
- c. Appropriateness of above with respect to mission and business objectives supported by the IT strategic plan.
- d. Alignment with mission and program objectives in consultation with program leadership.

1.1.8.9 Approves any movement or reprogramming of funds for IT resources that requires Congressional notification.

1.1.8.10 Coordinates with the Office of Human Capital to develop competency requirements for IT staff, and develop workforce planning process to anticipate and respond to changing mission requirements, maintain workforce skills, and recruit and retain IT talent needed to

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accomplish the mission.

1.2 All Directors/Managers, or designees, and/or Designated Responsible Personnel:

1.2.1 Notify the CIO when planned acquisition strategies and acquisition plans include information technologies.

1.2.2 Ensure CIO review and approval prior to initiating contract actions and/or interagency agreements that contain IT, unless they are consistent with OCIO previously-approved acquisition strategies and acquisition plans.

1.2.3 Ensure CIO review and approval prior to initiating contract modifications that make substantial changes to the scope of a significant contract, which would result in inconsistencies with OCIO previously-approved acquisition strategies and acquisition plans.

1.2.4 Comply with all applicable Federal and Agency IT policies, procedures, standards, and guidelines related to IT investments throughout the investment life-cycle process.

1.2.5 Ensure that all IT investments are thoroughly documented and accounted for within the respective organization's annual IT investment plan.

1.2.6 Utilize the OCIO-defined IT investment management system to capture, document, and report all IT investments.

1.2.6.1 Complete an electronic Summary Investment Business Case (SIBC) on each investment request that contains information technology.

1.2.6.2 Conduct an annual review with the OCIO of the organization's planned DME and SS investment requirements for IT applications and infrastructure services.

1.2.6.3 Ensure IT investments are performing against planned objectives.

1.2.6.4 Ensure IT procurements are traceable to an ITSIB-approved base-lined IT investment plan.

1.2.6.5 Report to the MSFC Marshall Enterprise Architecture Advisory Committee (MEAAC) and ITSIB new IT investments not previously included in the organization's base-lined annual IT plan, and/or significant changes or modifications to previously approved/base-lined IT investments.

1.2.6.6 Obtain ITSIB review and approval for new IT investments not previously included in the organization's base-lined annual IT plan, or for significant changes (+/- 15% cost) to

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previously- approved IT investment plans that exceed \$25K in cost.

1.3 The ITSIB:

1.3.1 Review and approve MSFC IT strategy, policy, investments, and cross-cutting processes to ensure consistency with NASA policy and guidance.

1.3.2 Establish baseline IT reporting requirements/thresholds for Center IT projects/initiatives.

1.3.3 Review and approve the Center’s consolidated IT plan for IT applications and IT infrastructure services.

1.3.4 Monitor the performance of, and ensure compliance with IT portfolio-reporting requirements defined by the Agency.

1.3.5 Review and approve the Center’s enterprise architecture.

1.3.6 Provide guidance and recommendations to MSFC governing councils regarding IT strategy, IT architecture, and IT investment prioritization and selection when visibility, integration, and understanding are needed to drive alignment to Center and Agency goals and objectives.

Note: Requirements and responsibilities for specific classes of IT services are located in Chapters 2-11.

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CHAPTER 2. GENERAL IT SERVICES PROVISIONING

2.1 The Office of the CIO shall:

2.1.1 Provide IT services to MSFC organizations, including, but not limited to, end-user services; data center services; software application solution services; audio-visual information services; telecommunications services; radio frequency management services; printing, graphics, publication production and reproduction services, network services, documentation repository services, IT help desk and support services, IT-related supplies, special-request software services, and temporary IT-related labor services.

2.1.2 Establish and maintain as needed, procedures, work instructions, and guidelines that governing provisioning of these services as part of MSFC processes.

2.1.3 Provide IT services consultation and requirements assistance for MSFC users and customers.

2.1.4 Establish and maintain a Web-based IT Services Catalog that defines and categorizes IT service offerings completely, accurately, and highlights business benefits, technical specifications, costs, and contains provisions to allow customers to order the service.

2.1.4.1 Describe base services and augmented/enhanced services in a format to facilitate ease of use, understanding of technical details, and quick access to ordering by the MSFC community.

2.1.4.2 Provide sufficient service specification technical detail for base services and augmented/enhanced services (including, for example, service definition overview, contact information, service delivery manager, service benefits, customer base, cost structure (cost rate, unit of measure, and discount rate), service availability (24x7, during working hours, etc.), how the service is delivered (through which Center or Agency contract), service level agreement (SLA), and service performance metrics).

2.1.5 Provide comprehensive IT acquisition services to MSFC organizations to facilitate requirements definition and specification, including market research, pricing and technical comparison, cost negotiation, award and receipt of IT replacement parts or equipment/hardware, hardware maintenance agreements, software license support agreements, and hardware engineering changes and/or updates.

2.1.6 Recommend to Center Director the Software Technical Authority for Class F, G, and H software in accordance with NPR 7150.2.

2.2 Directors/Managers, or designees, and/or Designated Responsible Personnel shall:

2.2.1 Ensure their organizations utilize Center IT support contracts managed by the OCIO to acquire or procure IT services defined within the scope of this MPR.

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2.2.1.1 Center organizations implementing Highly Specialized IT services and/or solutions may utilize a service provider other than the OCIO.

2.2.1.2 Report Highly Specialized IT investments to the OCIO through their annual IT investment plan.

2.2.2 Obtain exemption approval from the OCIO prior to acquiring or procuring IT products or services from a source other than OCIO-managed IT support contracts.

2.2.2.1 Center organizations requesting exemptions or deviations from standard IT service offerings defined in this MPR shall, at a minimum, be supported and documented by one or more of the following criteria:

- a. A special requirement that cannot be satisfied by current equipment offerings,
- b. A new or enabling technology or capability that is not currently available,
- c. A unique adaptation of an existing capability that is not offered,
- d. Special consideration regarding accessibility of system capabilities (508-related),
- e. Special interface or compatibility requirements with existing systems already in use,
- f. A Federally-mandated or NASA-specified compliance requirement that is not met by current equipment, or
- g. A mission specific requirement that is not otherwise covered by one of the above items.

2.2.2.2 Exemptions to specific requirements in this MPR shall be processed and approved through a documented request between the requestor and the OCIO-functional owner (or designated representative) of the product or service. Depending on scope, some exemptions may be approved by an organization's IT manager, or may require additional levels of approval by the MSFC CIO or a designated representative.

Note: MSFC Form 4609 provides a template and instructions that may be used to request an exemption of the requirement in section 2.2.2 above.

2.2.3 Identify and assign an Information Technology Manager (ITM), and if required, and at their discretion, a supporting Organizational IT Manager (OITM).

2.2.3.1 The ITM/OITM, on behalf of their assigned organization, shall:

- a. Ensure end-user needs are met, while refraining from providing services or products that duplicate functionality/capabilities.

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- b. Maintain visibility and insight into the organizations current IT inventory.
- c. Document, review, and validate IT service requirements initiated by personnel within their organizations.
- d. Prepare and submit IT service requests and obtain required organizational management approval prior to procuring IT products or services.
- e. Review, recommend, and approve IT service/product purchases for their respective organizations.
- f. Ensure IT service requests are traceable to an approved/base-lined IT investment plan.
- g. Assist the OCIO in preparing and maintaining up-to-date records regarding IT acquisitions.

2.2.4 Identify and assign an Organizational Resource Manager (ORM):

2.2.4.1 The ORM shall review, validate, and provide funding for IT services as required to support their organizations assigned mission responsibilities.

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CHAPTER 3. END-USER SERVICES

3.1 The Office of the CIO shall:

3.1.1 Provide End-User Services (i.e., desktop and laptop computers, computer monitors, local and networked printers, cellular phones and smartphones, pagers, tablet computers, and related software (per NASA STD-2804 and NASA STD-2805) through the established Agency Consolidated End-User Services (ACES) contract.

3.1.2 Provide end-user device seats included under MSFC Center Management and Operations (CMO) in accordance with the NASA Common IT Funding Model, and the NASA Base Service Level determinations (as described and specified in the ACES contract, including institutionally-funded civil servants and contractors.

3.1.3 Assign an End-User Services Subject Matter Expert to manage ACES deployment and operations at MSFC and provide final approval authority for all ACES seats and services.

3.1.4 Assign an IT Approver to review, approve, and disposition end-user service orders and exemption requests.

3.2 Directors/Managers, or designees, and/or Designated Responsible Personnel shall:

3.2.1 Ensure their organization utilizes the OCIO and the established ACES contract to procure all end-user computing devices and services.

3.2.2 Ensure users are supplied with appropriate capabilities, while refraining from providing multiple devices that duplicate the same functionality/capabilities.

3.2.3 Identify, validate, and provide funding for IT services as required to support their organizations assigned mission responsibilities.

3.3 Standard IT Services/Optional IT Services/Enhanced IT Services

3.3.1 Standard IT Seats and Services - The standard or basic level of IT services for an end-user shall consist of the following:

3.3.1.1 One Primary Computing Seat: A desktop computer (Windows or Mac operating system (OS) -based) seat as described by the current end-user services provider including one monitor, keyboard, mouse, and external speakers. If the computer is a laptop, the seat includes a docking station, one monitor, external keyboard, mouse, external speakers, power supply, and carry case.

3.3.1.2 Basic Enterprise Services: A NASA e-mail account, collaborative calendaring, active directory, software license management, and instant messaging capabilities.

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3.3.1.3 Enterprise Service Desk and Enterprise Service Request System Services: The NASA Centralized Help Desk for trouble ticket submission and service request logging.

3.3.1.4 Network Peripheral Services: General network-based printing and multifunctional capabilities (copier, scanner, printer, fax, and scan to e-mail).

3.3.2 Optional IT Seats and Services - Optional levels of IT services may include the following:

3.3.2.1 Cellular Phone Seat: A cellular device capable of making and receiving domestic voice calls. Additional capabilities include text messaging and simple calendaring functionality.

3.3.2.2 Smartphone Seat: A wireless enterprise solution capable of providing voice (e.g., short message service, internet browsing, and multimedia services), enterprise-based calendar and e-mail capability, international voice/data, and blue-tooth capability.

3.3.2.3 Mobile Broadband/Hot Spot: A cellular device that provides broadband/high-speed data transfer capability to one or more users.

3.3.2.4 Pager: A cellular-based device that provides numeric, alphanumeric, and two-way alphanumeric paging along with voice mail notification.

3.3.2.5 Tablet: A mobile device that provides enterprise calendaring and e-mail capabilities, Web browsing, and limited access to office documents (e.g., Microsoft Word, Excel, PowerPoint, and Adobe portable document format (PDF)).

3.3.3 Enhanced IT Seats and Services - Enhanced levels of IT seats and levels of service may include service seat upgrades and augmentations.

3.3.3.1 Service/Seat Upgrades: High-end engineering workstations, multiple displays, mobile devices, additional virtual team seats, and enhanced service levels (i.e., trouble ticket/ordering response times).

3.3.3.2 Augmentations: Any augmentation to base seats (after delivery) is considered demand-based services, with funding to be provided from the requesting organization.

3.3.4 End-User IT Seat/Service Selection Criteria - MSFC organizations shall use the following general criteria to determine the appropriate end-user services/devices for employees.

3.3.4.1 Standard IT Seats and Services Selection Criteria – In determining the need for standard levels of IT seats and services, MSFC organizations shall consider the following criteria:

a. Users requiring access to general office automation functionality (e.g., word processing, spreadsheet editing, or presentation creation) where no mobility or telework requirements exist,

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will be provided a desktop computer as their primary office computing system.

b. Users requiring access to email, calendaring, and general office automation functionality where a substantial mobility or telework requirement exists may be provided a laptop computer in lieu of a desktop computer.

c. Users requiring access to significant computational capabilities (e.g., computer-aided design, modeling, and/or simulation), general office automation functionality (e.g., word processing, spreadsheet editing, or presentation creation), and where no mobility or telework requirements exist, may be provided a workstation computer as their primary office computing system.

3.3.4.2 Optional or Enhanced IT Seats and Services Selection Criteria – In determining the need for optional or enhanced IT services, MSFC organizations shall consider criteria such as: whether the employee has a requirement for constant communications with the organization, maintaining remote accessibility to critical data and information, maintaining remote accessibility to general office automation capabilities when not in the normal working area, and the availability of organizational funding.

a. Users requiring frequent/regular access to a work area away from a standard land-based phone on a daily basis, the ability to make/receive frequent business calls outside of working hours, or that require availability to respond to safety/health/environmental issues or emergency situations may be provided optional mobile voice service via a standard cell phone.

b. Users requiring daily access to the internet while away from their office or requiring the ability to provide shared internet access to multiple users while away from the office environment may be provided optional mobile data service through a cellular broadband air card or mobile hotspot.

c. Users requiring regular voice communications and access to email, calendaring, and document office automation documents may be provided optional Mobile Voice and Data Service.

d. Users spending considerable time outside of the office, and that require a secondary office computing device with access to email, calendaring, and limited office automation functionality in order to support critical business operations may be provided with an optional mobile computing service seat (tablet).

3.4 Exemptions/Deviations for Standard, Optional, and Enhanced IT Seats and Services

3.4.1 Exemptions or deviations shall be documented by the organization’s IT manager, approved by the OCIO designated IT Approver, and maintained within the organization’s IT inventory for:

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3.4.1.1 Expanded visual capabilities beyond the default configuration of one display or monitor per primary office computing system.

3.4.1.2 Users requiring dedicated access to printing capabilities (e.g., printing documents containing Sensitive But Unclassified (SBU) and/or Personally Identifiable Information (PII), or secure infrastructure printing).

3.4.1.3 Users requesting more than one primary computing seat (desktop, laptop, or workstation) and a mobile computing seat (tablet).

3.4.1.4 Any IT products and services that are not provided or acquired through OCIO-managed IT support contracts.

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CHAPTER 4. NETWORK AND TELECOMMUNICATIONS SERVICES

4.1 The Office of the CIO shall:

4.1.1 Provide telecommunications services to MSFC customers.

4.1.1.1 Document provisioning of MSFC telecommunications services within the NASA Integrated Service Management (NISM) System.

4.1.1.2 Provide basic telephone/telecommunications service based upon one telephone, one directory number, and one line per person.

4.1.1.3 Provide necessary data connections and data services as required to support telephone, telecommunications, and fax services.

4.1.1.4 Assess the security impacts of, and approve requests for service connections outside the MSFC data network and/or attachment of any devices to the MSFC telephone system.

4.1.1.5 Review and approve appropriately submitted and funded requests for wireless communications devices, telephones for hallways, conference rooms, and common areas, requests for Federal Telecommunications System (FTS) calling cards, and exceptions for non-FTS telephone credit card charges.

4.1.1.6 Review and approve requests for individual phone numbers to be forwarded offsite.

4.1.2 Provide Local Area Network (LAN) services, including LAN infrastructure, wireless infrastructure, network installation and relocation, isolated LAN connectivity, encrypted/secure communications services, and network consulting.

4.1.2.1 Document provisioning of MSFC network services within the Service Request System (SRS).

4.1.2.2 Ensure appropriate and approved IT security plans are in place to address required elements of NPR 2810.1.

4.1.2.3 Manage LANS on the MSFC campus through effective capacity planning, configuration control, network performance monitoring, intrusion detection and prevention, and advanced security.

4.1.2.4 Maintain the integrity and quality of the service of the LAN by reviewing and approving any augmentation planned for the infrastructure, including installation of any LAN segment or any external connection to the MSFC campus, and disconnecting or denying service to any LAN segment causing network disruption.

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4.1.2.5 In conjunction with the MSFC Protective Services Office, review and approve requirements for encrypted or secure communications services.

4.1.3 Provide and maintain the Emergency Warning System (EWS).

4.1.3.1 EWS coverage areas shall be determined by the MSFC Emergency Preparedness Officer.

4.1.3.2 EWS equipment shall be provided by the OCIO to ensure maximum coverage for MSFC personnel.

4.2 Directors/Managers, or designees, and/or Designated Responsible Personnel shall:

4.2.1 Designate an individual to serve as coordinator for network and telecommunications services within the organization.

4.2.2 Coordinate requirements for MSFC LAN connectivity or augmentation through the OCIO.

4.2.3 Coordinate requirements for encrypted or secure communications services through the OCIO and the MSFC Protective Services Office, obtaining IT Systems Change Board approval as required.

4.2.4 Review and approve requests for network and telecommunications service in accordance with NASA policy (NPD 2530.1 and NPD 2540.1).

4.2.5 Approve requests for FTS calling cards, installation of building paging systems, telephone access, and telephone augmentations (headsets, hearing-impaired handsets, or telephone set upgrades, etc.).

4.2.6 Ensure that OCIO approval is obtained prior to physical attachment of any non-OCIO provided network/communications devices to the MSFC telephone system or network.

4.2.7 Prevent any network connectivity or activity that has not previously been coordinated with the OCIO and appropriate change board and/or that significantly degrades service to the MSFC community.

4.2.8 Ensure adequate funding is available for their organization's network and telecommunications services.

4.3 ITM/OITM/Telecommunications Coordinators shall:

4.3.1 Review and validate telecommunications service requirements, including telephone instrument relocations, initiated by personnel within the organization(s) represented by the coordinator.

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4.3.2 Coordinate with the MSFC OCIO when projects are planned which require telecommunications services.

4.3.3 Notify the MSFC OCIO of the initiation of special projects and meetings related to the planning of special projects.

4.3.4 Obtain approval of the appropriate officials within the coordinator's organization for the addition of requested services and ensure that funding is available and fund codes are included with the service request.

4.3.5 Monitor use of telecommunications equipment and identify unused equipment for return to the MSFC OCIO.

4.3.6 Coordinate acceptance of telecommunications equipment, facilities, and services.

4.3.7 Assist the MSFC OCIO in preparing and maintaining up-to-date records of telecommunications equipment and facilities.

4.4 All MSFC employees shall:

4.4.1 Comply with regulations regarding the use of Government-provided telecommunications equipment for official business in accordance with NASA policy directives (NPD 2530.1 and NPD 2540.1).

4.4.2 With the assistance of the telecommunications coordinator, prepare a telecommunications service request, obtain required organizational management approvals, and provide a funding source if applicable.

4.4.3 With the assistance of the ITM/OITM, prepare a network service request, obtain required organizational management approvals, and provide a funding source if applicable.

4.4.4 Submit telecommunications service requests via the NISM System. The NISM System can be accessed via the following URL address: <https://nism.ndc.nasa.gov>.

4.4.5 Submit network service requests via the Enterprise Service Desk (ESD). The ESD system can be accessed via the following URL address: <https://esd.nasa.gov>.

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CHAPTER 5. RADIO AND RADIO FREQUENCY SERVICES

5.1 The Center Director or designee, per NPD 2570.5, shall:

5.1.1 Designate an engineer in the OCIO as the MSFC Spectrum Manager.

5.2 The MSFC CIO or designee shall:

5.2.1 Provide basic radio and paging services for MSFC.

5.2.2 Designate an alternate MSFC Spectrum Manager.

5.3 Directors/Managers, or designees, and/or Designated Responsible Personnel shall:

5.3.1 Ensure that any radio frequency (RF) spectrum use required by their organizations is managed in coordination with the MSFC Spectrum Manager and in compliance with NPD 2570.5.

5.3.2 Provide funding for the initial cost of requested radio service equipment, other than basic service, and provide annual funding for equipment maintenance.

5.3.3 Secure the approval of the MSFC Spectrum Manager before initiating procurement action or budget submission related to planning the use of, conducting experiments relating to, or developing and procuring telecommunications systems requiring the use of RFs.

5.3.4 Ensure that all space vehicles and spacecraft under cognizance of MSFC are equipped with the ability to control electromagnetic emissions by at least one or more of the following methods:

5.3.4.1 On and off by remote command.

5.3.4.2 Human presence with the direct capability to control those emissions on and off.

5.3.4.3 This requirement shall be included as an integral part of the development and planning of the space project.

5.3.4.4 To deviate from this requirement for short-duration missions only, Department/Office Managers shall submit and receive exemption/deviation approval from the OCIO.

5.4 The MSFC Spectrum Manager shall be responsible for the following at MSFC and all NASA field sites under MSFC jurisdiction:

5.4.1 Coordinate all of the RF spectrum requirements pertaining to activities and projects involving MSFC with the NASA Spectrum Management Program Office.

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5.4.2 Maintain an accurate database of the status of all RF spectrum assignments in use at MSFC, including, deleting the requirements no longer required, modifying assignments as necessary, and reviewing all assignments at least every 5 years from the date of original assignment.

5.4.3 Ensure day-to-day interference-free operation at MSFC and incident reporting to the NASA Spectrum Management Program Office.

5.4.4 Ensure that communications and RF spectrum requirements for future missions are identified as early as possible and reported to the NASA Spectrum Management Program Office for inclusion in the NASA long-range spectrum forecasts.

5.4.5 Participate in local and national frequency management coordination groups, as appropriate, to provide representation and cognizance of MSFC’s communications requirements.

5.4.6 Ensure that all RF equipment procured and in use at and under MSFC responsibility meets the requirements of the Institute of Electrical and Electronic Engineers (IEEE) Safety Standard – C95.1. This document is generally accepted and referenced by the Federal Communications Commission, the National Telecommunications and Information Administration (NTIA), and related organizations.

5.5 Customers or end-users of equipment capable of transmitting RFs at any location under the responsibility of MSFC:

5.5.1 The Director/Manager or designee of customer’s organization shall:

5.5.1.1 Review and approve or disapprove requests for service in accordance with all appropriate provisions for RF assignment and allocation.

5.5.1.2 Provide funding for equipment maintenance of equipment other than basic service,

5.5.2 Customers or end-users shall:

5.5.2.1 Obtain a copy of the radio frequency authorization from the MSFC Spectrum Manager, verifying that the required radio spectrum has been authorized for use.

5.5.2.2 Ensure that, when a commercial contractor is employed to develop, construct, or operate a device that radiates or reradiates a radio signal, the acquired RFs are coordinated through the MSFC Spectrum Manager, regardless of the source of the contract or subcontract.

5.5.2.3 Ensure that persons operating radio equipment immediately comply with the instructions provided via the system’s mass notification radio channels (“all call”).

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Note: “All call” channels are used to announce impending weather events and periods of restricted radio use required to support Center emergencies or critical events.

5.5.2.4 Ensure that any person requiring research, development, components, or modifications of communication and electronic equipment or systems requiring RF support obtain frequency use concurrence by the MSFC Spectrum Manager before initiating a requisition or purchase request.

5.5.2.5 Ensure that a copy of the radio frequency authorization, issued by the MSFC Spectrum Manager, is made a part of the specifications and is included with the purchase request or purchase requisition.

5.5.2.6 Ensure the approver of any NASA Form 1707 required by NFS 1804.73, that is submitted with the purchase request or purchase requisition, verifies compliance with 5.6.5.1 as part of their review of Section 6 of NASA Form 1707, when the procurement includes the use of RF and Microwave Emitters.

5.5.2.7 Ensure that the MSFC Spectrum Manager certifies that the required radio spectrum is authorized for requests to purchase equipment capable of transmitting radio frequencies at any location under the responsibility of MSFC.

5.6 Provisions for RF Assignment and Allocation

5.6.1 Detailed provisions for RF assignment and allocation shall apply to:

5.6.1.1 The research and development, construction, operation, and/or first production of communications and electronic devices or subassemblies for MSFC which radiate or reradiate RF signals and in which acquisition of functioning hardware is the principal objective.

5.6.1.2 The functional modification of equipment that renders a previous frequency allocation inapplicable.

5.6.1.3 Acquisition of communications and electronic equipment or systems through requisition, transfer, or procurement.

5.6.2 Conditions of RF assignment and allocation:

5.6.2.1 All frequencies assigned through NASA channels for experimental purposes shall be used for operation in support of research and development activities or assigned on a non-interference basis unless stated on the authorization.

5.6.2.2 Radio transmitters shall be operated by adequately trained and designated personnel and in a manner conforming to established and accepted procedure.

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5.6.2.3 Transmitter operation shall be conducted on an authorized frequency only.

5.6.2.4 Power, emission, and conditions of assignment shall be adhered to at all times.

5.6.2.5 All radio transmissions shall be identified by the use of the authorized radio call sign.

5.6.2.6 Transmitter operation shall be held within prescribed tolerances unless otherwise authorized.

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CHAPTER 6. APPLICATIONS AND WEB SERVICES

6.1 The Office of the CIO shall:

6.1.1 Provide and manage Applications and Web Services, including applications and Web development and maintenance, Commercial-Off-The-Shelf (COTS) applications support, production application support, application training and consulting, searching/indexing/marketing, Web graphics design, Web development, Website hosting and maintenance, compliance and usability reviews, and conducting the Marshall Operational Readiness Review (MORR).

6.1.2 Ensure that appropriate and approved IT Security Plans are in place to address required elements of NPR 2810.1 for applications and Web services managed by the Office of the CIO.

6.1.3 Provide Web hosting services, and Web site layout, formatting, deployment, and maintenance.

6.1.4 Adhere to all applicable government, Agency, and Center policies and regulations regarding software and Web development and maintenance.

6.1.5 Provide a Web-based inventory and reporting capability to register applications and Web sites.

6.2 Directors/Managers, or designees, and/or Designated Responsible Personnel shall:

6.2.1 Define and submit their organization's requirements for application and Web services to the Office of the CIO.

6.2.2 Coordinate with the OCIO on requirements for unique applications and Web services for the purpose of minimizing duplication of effort and conserving resources.

6.2.3 Participate in application life cycle processes for the purposes of determining requirements, performing independent testing (as required), serving on the appropriate Configuration Control Board, which includes reviewing application requirements and releases, reporting any discrepancies to the appropriate IT Help Desk, and approving access to applications as required.

6.2.4 Register applications and Web sites in the electronic inventory "Applications Inventory Module (AIM)," at <https://aim.msfc.nasa.gov>.

6.2.5 Consolidate and unify their organization's Websites where appropriate, and maintain up-to-date information on their Websites.

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6.2.6 Discontinue and/or terminate applications and Web sites that no longer serve a useful business purpose.

6.2.7 Ensure that adequate funding is available for their organization's services.

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CHAPTER 7. GRAPHICS, PUBLICATION, PRINTING, REPRODUCTION, AND SELF-SERVICE COPYING SERVICES

7.1 The MSFC Office of the CIO shall:

7.1.1 Provide oversight and management of graphics, publication production, printing, reproduction, and self-service copying services at MSFC and at MAF.

7.1.2 Provide technical advice and consultation to MSFC organizations on matters pertaining to graphics, publication production, printing, reproduction, and self-service copying services.

7.1.3 Designate an MSFC Printing Officer.

7.1.4 Provide management oversight to ensure the printing, duplicating, and copy management activities at MSFC are in compliance with applicable laws, regulations, Executive Orders, policies, and procedures as prescribed in NPD 1490.1.

7.2 The MSFC Printing Officer shall:

7.2.1 Serve as the Installation Printing Management Officer (IPMO) and the Installation Copying Management Officer (ICMO) for MSFC as required by NPD 1490.1.

7.2.2 Provide technical assistance on all matters pertaining to commercial printing, duplicating, and desktop printing at MSFC and at MAF, and review and recommend approval/disapproval for all reproduction, copying, and printing equipment at MSFC and MAF.

7.2.3 Provide or obtain printing, duplicating, and reproduction services from appropriate sources.

7.2.4 Determine the most economical and efficient reproduction process that meets requirements of the requesting organization.

7.2.5 Provide advice and/or feedback to organizations on the use of color or alternative methods for the necessary products.

7.2.6 Serve as official liaison with the NASA Printing Manager, Government Printing Office (GPO) and other Government agencies on matters of printing, duplicating, and binding.

7.2.7 Manage and administer all matters pertaining to the self-service copier/multifunctional and printing devices to include reviewing all requests for replacement, purchase, location, relocation, and distribution of multifunctional and printing devices in compliance with the mandatory ACES contract at MSFC and MAF.

7.2.8 Provide service contracts for maintenance, repair, and relocation of equipment.

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7.2.9 Provide oversight for reviewing and approving procurement or lease of copying and/or printing-related equipment at MSFC and MAF that has an interface (electronic or physical) with Center workstations, computer systems, and/or networks.

7.2.10 Approve or disapprove requests for replacement, purchase, and rental of reproduction, copying, printing, or multifunctional equipment at MSFC and MAF. Administer contracts for the rental of equipment.

7.2.11 Review and approve all MSFC and MSFC-MAF non-Scientific and Technical Information publications for compliance with the NASA Style Guide and issuing NASA Publication numbers before they are printed.

7.3 Directors/Managers, or designees, and/or Designated Responsible Personnel shall:

7.3.1 Determine their printing and copying needs, establishing priorities on required printing and copying, and effecting necessary controls over classified and other types of administratively-controlled documents printing/copying necessary for the conduct of official business.

7.3.2 Approve color duplicating and commercial printing procurements for their employees through the NASA Integrated Service Management System.

7.3.3 Appoint contractor employees to approve black and white (B&W) and color reproduction with concurrence of the appropriate MSFC Contracting Officer’s Representative.

7.3.4 Update annually contractor appointments to the organizational authorization list as requested by the MSFC Printing Officer or as required.

7.3.4.1 Provide appointments to the MSFC Printing Officer, OCIO by letter or electronic mail.

7.3.4.2 Include the following with each appointment: name, title, organizational code, and telephone number.

7.3.4.3 Contractor appointments shall also include company name and contract number.

7.3.5 Approve the use of appropriated funds for procuring business cards per NPD 9070.1, “...for individuals within their organizations who, by virtue of the employees’ duties, interact with people or organizations external to NASA and whether the use of business cards by such employees would facilitate communications in the course of such interaction; therefore, requiring procurement of government business cards using appropriated funds.”

7.3.6 Ensure established controls are implemented/followed for classified and other types of administratively controlled document printing/copying.

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7.4 Key Operators and Alternate Key Operators shall:

7.4.1 Serve as the organizational point-of-contact for assistance in removing jammed paper, placing service calls when necessary, requesting additional toner supplies, and coordinating equipment relocations with the MSFC Printing Officer.

7.4.2 Post the Key Operator & Prohibited Reproduction Sign, MSFC Form 4481, (available from the MSFC Printing Office).

7.4.3 Provide limited training to other personnel (or requesting additional training from vendor).

7.4.4 Report to MSFC Printing Officer abuse that causes damage or renders the device unusable, personal misuse that adds excessive wear and tear on the equipment, or frequent/reoccurring downtime greater than twice per month.

7.5 Reproduction Customers shall:

7.5.1 Bear the primary responsibility for justifying the need and manner in reproducing Government information.

7.5.2 Request only the reproduction of material necessary to conduct official business. Minimize use of self-service copiers for large jobs.

7.5.3 Use electronic means for publishing or distributing information whenever possible.

7.5.4 Print only the number of copies needed and request additional copies when necessary.

7.6 The Office of Procurement shall:

7.6.1 Ensure that applicable clauses, provisions and special conditions prescribed by FAR 4.303, NFS 1808.8 and the NASA Grant and Cooperative Agreement Manual containing printing restrictions are included in MSFC contracts, orders, grants, and cooperative agreements.

7.6.2 Obtain prior approval from the MSFC Printing Officer to contract for printing supplies, duplicating or copying multifunctional equipment, or printing services. This includes approvals required by NFS 1808.8.

7.7 The MAF Chief Operating Officer (COO) (or designee) shall:

7.7.1 Assist the MSFC Printing Officer in managing the MAF printing program and deployment of self-service multifunctional devices at MAF.

7.7.2 Provide the MSFC Printing Officer all necessary production reports as required by Standard Data Requirements Document STD/MA-RPMR.

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7.8 General Duplicating and Commercial Printing Requirements

7.8.1 The In-House Duplicating Facility at MSFC and the MSFC/MAF Satellite Reproduction Center shall be the primary provider for printing, duplicating, reproduction, and binding support to all programs, missions, and activities within its capabilities to meet short delivery schedules and protect information designated as “Sensitive But Unclassified (SBU).”

7.8.2 All printing and reproduction shall be requested using the online NISM system at <https://nism.ndc.nasa.gov/>

7.8.2.1 All permanent-badged NASA employees shall be allowed to request B&W duplicating with no additional approvals. This excludes cooperative education employees, summer internships, or other such temporary appointments.

7.8.2.2 Onsite contractor personnel shall be authorized to request printing/duplicating when appointed by the appropriate Office or Department Director/Manager.

7.8.3 Color duplicating and commercially-procured printing shall be accomplished when the requested work is approved by an appropriate person within the requesting organization.

7.8.3.1 The list of authorized individuals shall be maintained by the MSFC Printing Office to ensure internal controls (viewable within the NISM ordering process).

7.8.3.2 All reproduction of classified information shall be coordinated with the Protective Services Office.

7.8.4 In-house duplication of color originals shall be limited to only SBU documents not to exceed 1,000 total page units.

7.8.5 Use of color shall only be used to add “demonstrable” value. (See examples of acceptable use of color in Appendix E.)

7.8.6 Tasks that are greater than 1,000 color impressions and greater than 25,000 B&W impressions (that are not protected as SBU) are beyond the scope of the In-House Duplicating Facility or the Satellite Reproduction facility at MAF and shall be procured commercially through the GPO.

7.8.7 All commercially-procured printing and duplicating services shall be obtained from the MSFC Printing Office and funded by the requesting organization.

7.8.8 All reproduction shall be supported through the CMO budget as specified by fiscal year limitations.

7.8.9 All overtime costs incurred for in-house duplicating services shall be funded by the requesting organization.

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7.8.10 Classified material or SBU documents shall be printed or reproduced in accordance with provisions outlined in NPR 1600.1.

7.8.11 Printing shall not be procured directly from any commercial sources unless a GPO waiver has been approved. Only the MSFC Printing Officer shall seek waivers on behalf of MSFC.

7.8.11.1 Procurement of printing and copying services is prohibited in accordance with MWI 5113.1, which states "...personnel who require only quick copy services that are less than \$1,000.00 and only while on temporary duty (TDY) status."

7.8.12 MSFC and MAF business cards that are purchased with appropriated funds shall be procured through the MSFC Printing Office.

7.8.12.1 Individuals who have approval from their immediate supervisor per the criteria stated in NPD 1490.6, and 7.3.5 of this MPR shall request business card printing through the NISM System.

7.8.12.2 The individual's immediate supervisor shall certify each service request for business cards by electronic approval through the NISM System.

7.8.12.3 Each organization shall fund the procurement of business cards prior to procurement initiation.

7.8.13 Printing shall be excluded from contracts and grants unless specifically authorized by the Joint Committee on Printing (JCP).

7.8.13.1 Contracts and grants shall not be used as sources for printing, publishing, and/or related services except when authorized by the MSFC Printing Officer through a waiver granted by the GPO.

7.9 Desktop Printing and Multifunctional Devices - General Requirements

7.9.1 Desktop printing support shall be delivered to MSFC and MAF organizations using network printers and multifunctional devices (MFD).

7.9.2 Desktop printing support shall be procured by mandatory participation in the ACES contract procured through the oversight of NASA Shared Services Center (NSSC).

7.9.2.1 Desktop printing shall be a network model for the most productive use of each printing device or MFD. Each printer or MFD will be located based on volume utilization, work group population, and work area proximity to obtain maximum benefit and cost effectiveness.

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7.9.2.2 Multifunctional equipment shall be located in common locations that can be designated as ACES infrastructure printers to reduce power consumption, floor space utilization, and reduce supply costs.

7.9.2.3 Infrastructure MFDs and printing devices shall not be placed for the exclusive use of any one element or organization.

7.9.3 Desktop print jobs that are greater than 25 total pages should be sent to the area MFD.

7.9.4 Local printers and MFDs should not be used for reproduction of recurring reports or other copying that exceeds a total of 100 pages.

7.9.4.1 Recurring reports or other copying that exceeds a total of 100 pages shall be sent to the In-House Duplicating Facility in 4200 via the NISM system.

7.9.5 All printing devices, in service or newly purchased (to include MFDs) shall be Energy Star compliant, enabled for power management, and configured to duplex printing as the default setting to achieve environmental goals at MSFC as described in Executive Orders 13514 and 13423.

7.9.5.1 In accordance with FAR 52.204-4, all multi-page work shall be printed on both sides of the sheet unless a practical purpose is served by one-sided duplication.

7.9.6 Private printers or printers that are connected to one computer and are Energy Star compliant will be allowed as “left-in-place” (LIP) if one of the following applies:

7.9.6.1 Employees with physical disabilities;

7.9.6.2 Laboratory testing where real-time printouts are required for analysis;

7.9.6.3 Special-use printers larger than 11”x17” output size such as plotters;

7.9.6.4 Other special-use printers such as, but not limited to, bar code label printers or portable printers for field work and that serve no other function and shall be approved by the MSFC Printing Officer via memorandum.

Note: Private printers connected to a single computer that do not meet these conditions listed above will be labeled “die-on-the-vine.”

7.9.7 Sensitive documents can be printed to MFDs with Secure Print using a passcode or Public Key Infrastructure (PKI) Encryption Print with an MSFC Personal Identity Verification (PIV)-card and pin.

7.9.8 Copyrighted material in which the Government has no property right shall not be copied or otherwise reproduced without permission from the copyright owner unless permitted under the

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“fair use” doctrine. Guidance on the application of the “fair use” doctrine can be obtained from the Office of the Chief Counsel.

7.9.9 Limited personal use of photocopiers and MFDs shall be in accordance with NPD 2540.1 which describes limited use that should not interfere with official business, only incur minimal expenses to not deplete consumables or excessive wear and tear, nor allow unauthorized reproduction of copyrighted material, privacy information, or material with other intellectual property rights.

7.9.10 In accordance with E.O. 13423 and MWI 8540.2, organizations shall purchase recycled paper with a minimum content of 30% post-consumer material for copying/printing.

7.9.11 All devices currently in use that are not Energy Star compliant shall be designated as “die-on-the-vine.”

7.9.12 Any printing device that remains in service and is designated a “die-on-the-vine” device will be removed from service when current supplies are depleted or when the device requires service to operate.

7.10 Graphics and General Publication Requirements

7.10.1 Graphic and publication services shall be provided by the OCIO, with the CIO approving any exceptions.

7.10.2 All documents shall follow the NASA Style Guide and all appropriate standards for each publication type, especially if being distributed to the public.

7.10.3 All publications (excluding Scientific and Technical Information [STI], i.e., NASA STI Report Series) produced for distribution to any external audience shall be distributed, reproduced or printed with an assigned NASA Publication Number issued by the MSFC Printing Officer as prescribed by NPD 1490.1 to include available PDF Web documents on public Web sites which can be printed by the public.

7.10.4 Official NASA letterhead stationery shall be printed in accordance with approved design and printing standards as prescribed by NASA Public Affairs Office at Headquarters.

7.10.4.1 Electronic letterhead is not permissible.

7.10.4.2 Continuation sheets shall not be printed.

7.10.5 Use of the official NASA seal and NASA insignia shall be in accordance with 14 C.F.R. Part 1221.1 and the NASA Style Guide published at http://communications.nasa.gov/OCPToolKit_lib/pdf/1048620main_1021337main_NASastyleguide_complete_012709TAGGED.pdf.

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7.10.6 Standard distribution usage shall be in accordance with MPR 1551.1.

7.11 **Additional Information**

7.11.1 Additional Guidance on Printing, Reproduction, and Self Service Copying Services is found in Appendix E.

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CHAPTER 8. DATA CENTER SERVICES

8.1 The Office of the CIO shall:

8.1.1 Provide and manage Data Center Systems and Services, including data center operations; systems administration; database administration; hardware acquisition and installation; file services; software licensing; and disaster recovery services.

8.1.2 Ensure appropriate and approved IT security plans are in place to address required elements of NPR 2810.1

8.1.3 Report IT resources to Center and Agency management.

8.1.4 Coordinate and/or approve, as required, specialized services on OCIO-managed servers/systems.

8.2 Directors/Managers, or designees, and/or Designated Responsible Personnel shall:

8.2.1 Define, coordinate, and submit organizational requirements for data center services with the Office of the CIO.

8.2.2 Utilize the OCIO to provide all data center services and capabilities.

8.2.3 Ensure OCIO approval is obtained prior to attachment of any non-OCIO provided server or device to the MSFC network.

8.2.4 Refrain from and prevent any data center activity that has not previously been coordinated with the OCIO and/or appropriate change board, and/or that may impact or degrade service to the MSFC community.

8.2.5 Manage and maintain organizational data content of all applications.

8.2.6 Ensuring adequate funding is available for their organization's data center services.

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CHAPTER 9. AUDIO VISUAL INFORMATION SERVICES

9.1 The Office of the CIO shall:

9.1.1 Provide audio-visual, interactive Web and multimedia, television, video monitoring, digital photographic, scanning, printing, video, and motion picture documentation services for the Center.

9.1.2 Be responsible for the MSFC Closed Circuit Television (CCTV) System and the repair/maintenance of all associated equipment, including the technical determination as to whether or not an event/activity could be televised, posting of notification events on CCTV, and system activation.

9.1.3 Provide and maintain the Closed Circuit Center-wide Video Distribution System.

9.1.3.1 Video monitors for the display of Center-wide closed circuit video shall be provided only in conference rooms, cafeterias, and assembly areas for the maximum coverage for employees.

9.1.3.2 The placement of the video monitors shall be coordinated by the OCIO with the organizational management responsible for the area.

9.1.4 Provide Standard and High Definition Digital Television (DTV) services requiring the use of DTV technologies, including video recording, editing, and compression for delivery via Internet or digital disks.

9.1.5 Provide and maintain the EWS.

9.1.5.1 EWS coverage areas shall be determined by the MSFC Emergency Preparedness Officer.

9.1.5.2 EWS equipment shall be provided by the OCIO to ensure maximum coverage for MSFC personnel.

9.1.6 Operate and maintain the MSFC Visual Aids Library providing a comprehensive pictorial index and set of electronic files for potential use in presentations by MSFC organizations.

9.1.6.1 Provide consulting assistance to clients in the selection of appropriate visual aids.

9.1.7 Directors/Managers, or designees, and/or Designated Responsible Personnel shall:

9.1.7.1 Review existing resources maintained in the MSFC Visual Aids Library before requesting additional or new material.

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9.1.7.2 Ensure that audio-visual information resources described above comply with provisions of the Section 508 Act.

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CHAPTER 10. MORR FOR CENTER APPLICATIONS AND WEB SITES

10.1 The MSFC Office of the CIO shall:

10.1.1 Advise and assist organizations developing applications/Web sites in understanding MORR requirements and developing MORR materials for the review process.

10.1.2 Maintain the elements of readiness in an electronic MORR template. Elements of readiness include application functionality, computing environment, local area network, help desk procedures, support staff, user training, IT security, Section 508 compliance, and any other special items as required.

10.1.3 Convene a MORR meeting or an electronic MORR review prior to release or major redesign, or addition of new functionality to any Center application or Web site to the MSFC community.

10.1.4 Ensure that appropriate OCIO personnel participates in the MORR, and that any deficient items of readiness are identified and addressed prior to release of the application or Website.

10.1.5 Ensure that MORRs are conducted to meet sponsoring organizations' schedules.

10.1.6 Grant approval for production release of applications and Websites through the MORR process.

10.1.7 Maintain a record of all applications and Websites that have received approval through a MORR and any that have interim approvals with documented deficiencies.

10.2 Application and/or Web site Sponsoring Organizations shall:

10.2.1 Adhere to Government, NASA, and Center policies and standards throughout the entire life cycle of an application or Website.

10.2.2 Consult with the OCIO to determine when a MORR is required.

10.2.3 Prepare MORR materials for all required MORRs and present these materials for review.

Note: If assistance is needed in preparation of such materials, the sponsoring organization should contact the OCIO (see <https://explornet.msfc.nasa.gov/community/ocio> for information).

10.2.4 Take any corrective actions resulting from the MORR and gain final approval before production operational release.

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CHAPTER 11. DOCUMENTATION REPOSITORY SERVICES

11.1 All MSFC organizations generating or controlling technical documentation shall be responsible for submitting documents to the MSFC Documentation Repository.

11.1.1 Detailed instructions for Center organizational elements are contained in MWI 2210.1.

11.2 The MSFC Office of the CIO shall:

11.2.1 Ensure that the MSFC Documentation Repository provides high quality technical and administrative documentation management services to MSFC organizations in support of Center roles and missions.

11.3 The MSFC Documentation Repository shall:

11.3.1 Support the Office of Primary Responsibility (OPR) and act as the record custodian for officially-released MSFC Class I engineering data, including MSFC Technical Standards (as defined in MPR 8070.1 including their final disposition/retirement.

11.3.2 Support the OPR in the management and archival disposition of MSFC Class II program/project documentation as defined in written agreement(s) between the responsible program/project organization and the MSFC Documentation Repository.

11.3.3 Protect and store limited-rights technical data, export-controlled technical data, and data designated SBU delivered under MSFC contracts as directed by the applicable project manager, contracting officer, and applicable security policies. (Refer to NPR 1600.1, NPR 2810.1, and MPR 2190.1 for additional information.)

11.3.4 Release nonproprietary and unclassified technical documentation in reasonable quantities to MSFC contractors and bidders only as provided for in the solicitation, or as specifically authorized by the responsible contracting officer.

11.3.5 Distribute limited-rights technical data, export-controlled technical data, and data designated SBU only in accordance with applicable disclosure restrictions. (See NPR 1600.1, and MPR 2190.1.)

11.3.6 Process requests for documentation from contractors performing under current NASA contracts and other Government agencies on a reciprocal basis.

11.3.7 Process requests for documentation from commercial sources not performing under a current NASA contract in accordance with MPR 1380.4 and Freedom of Information Act procedures at the cost per page as prescribed in 14 C.F.R. Part 1206 excluding documents to be provided pursuant to solicitations.

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11.4 Directors/Managers, or designees, and/or Designated Responsible Personnel shall:

11.4.1 Provide a copy of all technical documentation furnished under an MSFC contract to the MSFC Documentation Repository by acceptable quality media, with submittal in electronic format preferred.

11.4.2 Coordinate electronic data submittals with the Documentation Repository Manager to ensure that the data is in a format that can be accepted and maintained.

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APPENDIX A. Definitions

Adequate Incremental Development. For development of software or services, planned and actual delivery of new or modified technical functionality to users occurs at least every six months.

Application. A NASA-owned, server-based computer program, or suite of computer programs, that creates, updates, manages, calculates, displays, or otherwise processes information for a specific NASA mission or business purpose. An application may be commercial-off-the-shelf (COTS), government off-the-shelf (GOTS), modified off-the-shelf (MOTS), or custom-built.

Application/Website Life Cycle. The activities included in the design, development, integration, testing, operation, documentation, sustainment, and retirement of an application or Web site.

Camera Ready Art. A digital file and/or manual preparation of color separations that are required by the printer to reproduce an image or publication.

Chief Information Officer (CIO). The Chief Information Officer, or CIO, is the individual responsible for the overall strategic direction, management, implementation, usability, and performance of information technology and services at MSFC.

Class I Engineering Data. Class I engineering data is a term used by the MSFC OCIO that refers to technical documentation, engineering drawings, or other data under configuration control and released by the MSFC Release Desk, which is administered by the Engineering Directorate.

Class II Engineering Data. Class II engineering data is a term used by the MSFC OCIO that refers to technical documentation, engineering drawings, or other data under configuration control and release by MSFC contractors or other external entities, or released by MSFC organizations through an organization release process other than the MSFC Release desk.

Commercial Printing. The process of composition, plate making, presswork, duplicating, silk-screen processes, production of an image on paper or other substrates by any processes, binding, and the end items of such processes and equipment.

Computing Environment. The identification of the computer(s), operating system(s), programming language(s), development tool(s), database(s), and network(s) associated with an application or Web site.

Commercial-Off-The-Shelf (COTS). Software or hardware products that are those that are ready-made and available for sale to the general public.

Data Center Operations. This service includes 7 days per week, 24 hours per day operational monitoring of system availability and performance, trouble ticket management, regularly-

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scheduled incremental and full volume backups, disaster recovery, controlled environment, and security management.

Desktop Printing. Networked printers and MFD used primarily for administrative functions from a users’ desktop computer seat. Networked printer architecture makes all devices available to any user which is essential when the primary printer is out of service, busy with complex jobs, or out of supplies.

Development, Modernization, or Enhancement (DME) Investment. The total cost for new investments, changes, or modifications to existing systems to improve capability or performance, changes mandated by the Congress or agency leadership, personnel costs for investment management, and direct support. For major IT investments, this would equal the sum of amounts reported for planning and acquisition, plus the associated full-time equivalent (FTE) costs reported in the summary investment business case.

Die-on-the-Vine. A designation given to specific printing devices that are Government-owned and do not meet the criteria for Energy Star. Any printing device that remains in service and is designated as a “die-on-the-vine” device will be removed from service when current supplies are depleted or when the device requires service to operate.

Duplex. The industry term for two-sided copying or printing. The opposite of duplex is simplex which is the industry term for one-sided copying or printing.

Duplicating. Xerographic or electrostatic photocopying identified and established as a form of printing.

Export-Controlled Technical Data. Technical data that is subject to strict control procedures mandated by applicable Federal regulations. (For further information, see MPR 2190.1.)

Federal Telecommunications System (FTS) Calling Cards. Cards available for use by MSFC employees during authorized travel or while conducting official government responsibilities when direct connection to FTS is unavailable.

Graphic. An illustration, chart, graph, table, photograph, poster, conceptual artwork, internal logos for team building purposes only, animation, and/or electronic art that is required to be published or otherwise reproduced for distribution in the performance of official NASA business, excluding administrative documents.

Hidden IT. See the definition for Shadow IT.

Information Technology. Includes (a) any services or equipment, or interconnected system(s) or subsystem(s) of equipment, that are used in the automatic acquisition, storage, analysis, evaluation, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information by the agency; where (b) such services are ‘used by an agency’ if used by the agency directly or if used by a contractor under a contract

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with the agency that requires either use of the services or equipment or requires use of the services or equipment to a significant extent in the performance of a service or the furnishing of a product; (c) the term “information technology” includes computers, ancillary equipment (including imaging peripherals, input, output, and storage devices necessary for security and surveillance), peripheral equipment designed to be controlled by the central processing unit of a computer, software, firmware and similar procedures, services (including provisioned services such as cloud computing and support services that support any point of the lifecycle of the equipment or service), and related resources; (d) the term “information technology” does not include any equipment that is acquired by a contractor incidental to a contract that does not require use of the equipment.

Information Technology Resources (ITR). Includes all (a) Agency budgetary resources, personnel, equipment, facilities, or services that are primarily used in the management, operation, acquisition, disposition, and transformation, or other activity related to the lifecycle of information technology; (b) Acquisitions or interagency agreements that include information technology and the services or equipment provided by such acquisitions or interagency agreements; but (c) does not include grant to third parties which establish or support information technology not operated directly by the Federal Government.

Installation Copying Management Officer (ICMO). The responsibilities are assigned to each Center by NPD 1490.1 to administer the copier/multifunctional devices at each Center. These responsibilities are assigned to the MSFC Printing Officer.

Installation Printing Management Officer (IPMO). The responsibilities are assigned to each Center by NPD 1490.1 to administer the printing management program at each Center. These responsibilities are assigned to the MSFC Printing Officer.

IT Infrastructure. Hardware, software, and processes that together deliver fundamental IT capabilities in support of NASA users, applications, systems, and data.

IT Investment. Consists of resources; i.e., funding and some combination of IT hardware and/or software, along with a decision on how to apply those resources that results in a capability, product, or service that helps NASA achieve its mission.

IT Security Plan. The source document that describes how the security controls for particular systems function. Refer to NPR 2810.1.

Left-in-place (LIP). Specific printing devices that are Government-owned equipment that meet Energy Star compliance and are deemed usable for the most cost effective printing solution in a given work location as determined in coordination with the MSFC Printing Officer. These devices may retain maintenance through the MSFC IT support contract and users/organizations are authorized to purchase additional toner supplies.

Limited-Rights Technical Data. Limited-rights technical data is data of a scientific or technical nature that is developed at private expense and embodies trade secrets or is confidential or

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privileged. Such data is commonly referred to as proprietary data and has restricted legends limiting disclosure and use.

Major IT Investment. An IT investment requiring special management attention because of its importance to the mission or function to the government; significant program or policy implications, high executive visibility/oversight; high development, operating, or maintenance costs; unusual funding mechanisms; or definition as a major by the Agency’s capital planning and investment control process. Investments not considered “major” are “non-major”.

Marshall Operational Readiness Review (MORR). A review of a computer application or Web site to ensure it meets existing Government, NASA, and MSFC policies and standards before being released to the MSFC community. The MORR template and contact information can be found at <https://explornet.msfc.nasa.gov/community/ocio>

MSFC Graphics Performance Evaluation Monitor. The person responsible for overseeing the contractor performance in the Graphics and Publications area.

Multifunctional Device (MFD). Digital printing equipment that provides self-service copying and has connectivity to local area networks and phone systems to enable print, scan, and facsimile capabilities.

National Archives and Records Administration (NARA). An independent Federal agency that oversees the management of all Federal records.

NASA Style Guide. An Agency document providing guidance for clear, consistent graphics standards that communicate a unique visual identity for NASA and acceptable application of the NASA Seal and NASA Insignia.

Non-record Copy. Copy of a document preserved only for convenience of reference.

Office of Primary Responsibility (OPR). The organization having the responsibility for the process/procedures for the delivery of the product or services to the customer identifying which records need to be generated and placed under control.

Portable Document Format (PDF). A file format used to represent documents in a manner independent of application software, hardware, and operating system. A PDF file encapsulates a complete description of a fixed-layout flat document, including the text, fonts, graphics, and other information needed to display it.

Private Printers. Printing devices that are connected to one computer and are exclusive to one user or connected to one computer and “shared” through a user’s computer software and exclusive to a specified group.

Publication Production. The writing, editing, typing, proofing, graphic design, page design/layout, and camera-ready art of publications produced for official NASA business.

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Public Key Infrastructure (PKI). NASA-recommended encryption protocol for securing and transmission of SBU documents to intended users.

Radio Frequency (RF) Management. The effective allocation of the RF spectrum to prevent harmful interference and waste of the RF spectrum as a natural resource.

Radio Services. The provision of hand-held and mobile radios that operate at MSFC and within the local area.

Record Copy. Usually the original of a record or the first-generation of the original that is maintained by the OPR in lieu of the original.

Record Custodian. The individual who is responsible for collecting, indexing, accessing, filing, storing, maintaining, and dispositioning a record or collection of records.

Reproduction. Copies either from a plate or master by using a printing process or duplicator or making copies directly from original matter by using a copy machine.

RF Allocation. The process of setting aside a portion of the RF spectrum for a particular use or service. A Table of Frequency Allocations reflects such a division of the radio spectrum.

RF Assignment. An authority to operate on a particular frequency. When such a frequency is assigned, it is the license for that radio station to operate on that specific frequency.

RF Support. The availability of authorized segments of the RF spectrum to accommodate the operating requirements of particular electronic equipment

Section 508 Compliance. The Federal requirement for any electronic and information technology developed, maintained, procured, or used by the Federal Government to be accessible to people with disabilities, including employees and members of the public. Refer to NASA Section 508 information found at http://www.nasa.gov/accessibility/section508/sec508_overview.html, Federal Acquisition Circular 97-27, and the Department of Justice Section 508 Home Page <http://www.usdoj.gov/crt/508/508home.html>.

Self-Service Copying. Low-volume reproduction produced on office copiers or multifunctional devices located across MSFC within work area vicinities. These are also referred to as quick-copy machines and/or convenience copiers.

Sensitive But Unclassified (SBU) Data. See NPR 1600.1 for SBU definition.

Server. A computer that provides a specific kind of service to computers running client software. These services include Web, application, file storage, and computation.

Shadow IT. Refers to spending on IT that is not fully transparent to the CIO and/or IT resources

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included as a portion of a program that is not primarily of an “information technology” purpose, but delivers IT capabilities or contains IT resources. For example, a grants program that contains a portion of its spending on equipment, systems, or services that provide IT capabilities for administering or delivering the grant.

Sponsoring Organization. The organization that owns an application or Web site, its operation, and content.

Steady State (SS) Investment. The ongoing maintenance and operation costs at current capability and performance level, including costs for personnel, maintenance of existing systems, corrective software maintenance, voice and data communications maintenance, and replacement of broken IT equipment. For major IT investments, this amount would equal the amount reported for maintenance, plus the associated FTE costs reported in the summary investment business case.

Telecommunications Coordinator. A person assigned by a user organization as the point of contact for coordinating communications services within the organization.

Telecommunications Services. All telephone, fax, radio, pager, wireless communications devices and services provided by the MSFC OCIO.

Web site. A collection of related Web pages, images, videos or other digital assets that are addressed relative to a common Uniform Resource Locator (URL) which is accessible via a network such as the Internet or a private local area network. A Website can either be a Web-enabled application or a static, information-only Website.

Wireless Communications Devices. Devices that have the ability to communicate/interface wirelessly with the internet. These devices include handheld computers and devices that use the Center’s LAN Infrastructure using 802.11 wireless standards.

802.11 Wireless Standard. IEEE 802.11 is a set of standards for implementing wireless local area network (WLAN) computer communication in the 2.4, 3.6 and 5 GHz frequency bands. They are created and maintained by the IEEE LAN/MAN Standards Committee (IEEE 802). The base version of the standard IEEE 802.11-2012 has had subsequent amendments. These standards provide the basis for wireless network products using the Wi-Fi brand.

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APPENDIX B. Acronyms

ACES	Agency Consolidated End User Services Contract
AIM	Applications Inventory Module
B&W	Black and White
CCTV	Closed Circuit Television
CFR	Code of Federal Regulations
CIO	Chief Information Officer
CMO	Center Management and Operations
COO	Chief Operating Officer
COTS	Commercial-Off-The-Shelf
DME	Development, Modernization, and Enhancement
DTV	Digital Television
DVD	Digital Video Disk
EIT	Electronic Information Technology
E.O.	Executive Order
ESD	Enterprise Service Desk
EWS	Emergency Warning System
FAR	Federal Acquisition Register
FITARA	Federal IT Acquisition Reform Act
FTE	Full-Time Equivalent
FTS	Federal Telecommunications System
GOTS	Government-Off-The-Shelf
GPO	Government Printing Office
HQ	Headquarters
ICMO	Installation Copying Management Officer
IEEE	Institute of Electrical and Electronic Engineers
IPMO	Installation Printing Management Officer
ISO	International Organization for Standardization
IT	Information Technology
ITR	IT Resources
ITM	IT Manager
ITSIB	IT Strategy and Investment Board
JCP	Joint Committee on Printing
LAN	Local Area Network
LIP	Left In Place
MAF	Michoud Assembly Facility
MAMS	Marshall Asset Management System
MEAAC	Marshall Enterprise Architecture Advisory Committee
MFD	Multifunction Device
MORR	Marshall Operational Readiness Review
MOTS	Modified Off-the-Shelf
MPD	Marshall Policy Directive
MPR	Marshall Procedural Requirements
MSFC	Marshall Space Flight Center

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MWI	Marshall Work Instruction
NARA	National Archives and Records Administration
NASA	National Aeronautics and Space Administration
NDC	NASA Data Center
NISM	NASA Integrated Service Management
NFS	NASA FAR Supplement
NPD	NASA Policy Directive
NPR	NASA Procedural Requirements
NRRS	NASA Records Retention Schedules
NSSC	NASA Shared Services Center
NTIA	National Telecommunications and Information Administration
OCIO	Office of the Chief Information Officer
OITM	Organizational IT Manager
OMB	Office of Management and Budget
OPR	Office of Primary Responsibility
ORM	Organizational Resource Manager
OS	Operating System
PDF	Portable Document Format
PII	Personally Identifiable Information
PIV	Personal Identity Verification
PKI	Public Key Infrastructure
R&D	Research and Development
RF	Radio Frequency
SBU	Sensitive But Unclassified
SDL	Standard Distribution List
SIBC	Summary Investment Business Case
SLA	Service Level Agreement
SRS	Service Request System
SS	Steady State
STD	Standard
STI	Scientific and Technical Information
TDY	Temporary Duty
URL	Uniform Resource Locator
Wi-Fi	Wireless Fidelity
WLAN	Wireless Local Area Network

Appendix C. Verification Matrix (Reserved)

None.

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Appendix D. Records

D.1 General

D.1.1 Records will be managed in accordance with MPR 1440.2, NPR 1441.1, and NRRS 1441.1.

D.1.2 Retirement and/or transfer of these records are coordinated through the MSFC Records Manager.

D.1.3 Information regarding identification, maintenance, and retention of records related to specific IT processes, products, and services not specified in this MPR are documented in the directives and/or organizational issuances related to those processes, products, and services.

D.2 MSFC IT Investment Planning Records

D.2.1 Records documenting MSFC compliance to Federal law (including, but not limited to, reports to NASA Headquarters (HQ) and OMB) are maintained by the OCIO per NASA Records Retention Schedule (NRRS) 2/26/F; cut off annually; destroy/delete when 5 years old.

D.2.2 Records documenting the integration of IT investments with Agency-wide strategic planning, budgeting, procurement, and management are maintained by the OCIO per NRRS 2/26/E; cut off annually; destroy/delete when 7 years old or when no longer needed, whichever is later.

D.3 General IT and End-User Service Provisioning Records

D.3.1 Service Requests submitted via the MSFC NISM/SRS catalog are stored on a database server maintained by the OCIO per NRRS 2/27/C/2/(b); destroy.3 years after agreement, control measures, procedures, project, activity, or transaction is obsolete, completed, terminated, or superseded, but longer retention is authorized if required for business use.

D.3.2 Records of service requests, service order information, catalog orders, purchase requests, purchase orders, and service costs are maintained by the OCIO contractors according to their government-approved systems, procedures, and processes and are available to NASA either online or by request.

D.3.3 Marshall Asset Management System (MAMS) electronic records are maintained for the lifetime of the system described or until migrated to a replacement system. NRRS 2/27/C/2/(a); destroy5 years after system is superseded by a new iteration, or is terminated, defunded, or no longer needed for Agency/IT administrative purposes, but longer retention is authorized if required for business use.

D.4 Network and Telecommunications Services Records

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D.4.1 Engineering assessments for special services are maintained by the OCIO support contractor within work package files of the assessing engineer per NRRS 2/27/K; destroy 5 years after project is terminated, but longer retention is authorized if required for business use.

D.4.2 Telecommunications Operational Files, including message registers, logs, performance reports and related electronic records per NRRS 2/19/H/1; temporary, destroy when 6 months old.

D.5 Radio and RF Spectrum Services Records

Since civilian government agencies adopted the NTIA Spectrum XXI electronic repository system for managing radio frequency processing, all radio frequency assignment records are kept within that system. NTIA is the Agency of record for all government non-Department of Defense spectrum management requests and frequency assignments. NTIA is responsible for managing all spectrum management records via their electronic system.

D.6 Applications and Web Services Records

D.6.1 IT Asset and Configuration Management files, including data and detailed reports on software systems and applications throughout their systems development life cycle – from development and implementation to modification and retirement – are maintained in MSFC’s Sharepoint service per NRRS 2/27/C/2/(a); destroy 5 years after system is superseded by a new iteration or is terminated, defunded, or no longer needed for Agency/IT administrative purposes, but longer retention is authorized if required for business use.

D.6.2 IT Asset and Configuration Management files, including data and detailed reports on implementation of systems, applications, and modifications, application sizing, resource and demand management; documents identifying, requesting, and analyzing possible changes; documentation of software distribution and release or version management are maintained in MSFC Sharepoint and Subversion per NRRS 2/27/C/2/(a); destroy 5 years after system is superseded by a new iteration, or is terminated, defunded, or no longer needed for Agency/IT administrative purposes, but longer retention is authorized if required for business use.

D.6.3 Committee records from Information Technology Manager meetings per NRRS 2/26/G; temporary, cutoff annually and destroy/delete when 5 years old.

D.7 Graphics, Printing, Reproduction, and Self-Service Copying Services Records

D.7.1 Service orders for duplicating and printing are maintained in the MSFC Printing Office per NRRS 1/81/A; destroy 6 years after final payment or cancellation, but longer retention is authorized if required for business use.

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D.7.2 Requisitions to the Public Printer, GPO invoices, and certifications maintained in the MSFC Printing Office per NRRS 1/81/A and NRRS 1/81/B; destroy 6 years after final payment or cancellation, but longer retention is authorized if required for business use.

D.7.3 Authorization list (to include organization memorandums of appointments) are maintained in the MSFC Printing Office per NRRS 1/78/F/1; cut off at end of fiscal or calendar year; destroy/delete 2 years after cut-off.

D.7.4 MSFC Form 4481 is displayed at multifunctional devices and superseded by new key operator appointments for that device. Superseded forms should be destroyed immediately.

D.8 Data Center Services Records

[none identified]

D.9 Audio Visual Information Services Records

D.9.1 Historical photographic, video, Digital Video Disk (DVD), and motion picture film materials are maintained by the OCIO in Buildings 4200 and 4207.

D.9.2 Photographs and still negatives (including electronic formats) are permanent records that are maintained per NRRS 2/23/B/1/(c); retire master and one print to the Federal Records Center in one year blocks when no longer needed or when 5 years old whichever is sooner, then transfer to National Archives and Records Administration (NARA) in 5 year blocks when 25 years old or sooner.

D.9.3 Motion picture film materials are permanent records that are maintained per NRRS 1/71/D/1/(a); transfer to NARA in College Park, MD when 5 years old.

Note: Materials to be included are original negative or color original plus sound track; and intermediate master positive or duplicate negative plus sound track; and sound projection print, along with complete identifying information.

D.9.4 Videos and DVDs are maintained as follows:

D.9.4.1 Documentaries that document installation projects, programs, or the mission of the Agency/Center are permanent per NRRS 2/24/A/1; transfer to the NARA Non-textual Division on an annual basis or as created. Include two copies of each production—one master (finished production) and one duplicate copy.

D.9.4.2 Miscellaneous Productions (including, but not limited to, training classes, meetings, conferences, or seminars) per NRRS 2/24/A/2; destroy or reuse when no longer needed or when 1 year old, whichever is longer.

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D.9.4.3 Research and Development Videos/DVDs are maintained as part of the program/project case files.

D.9.4.3.1 Selected project case files: per NRRS 8/101 (Permanent); cut off records at close of program/project or in 3-year blocks for long-term programs/projects and transfer to records center storage. Transfer records to NARA 7 years after cut-off.

D.9.4.3.2 Non-selected project case files: per NRRS 8/103 or 8/107; destroy/delete between 5 and 30 years after program/project termination.

D.9.4.3.3 Duplicate copies of research and development (R&D) Videos/DVDs: per NRRS 2/24/C/3; may be retired to a Federal Records Center when 2 years old; destroy when 15 years old.

D.10 MORR Records

D.10.1 The email approval for production release along with the MORR charts of applications/Web sites that have been approved via an OCIO MORR are maintained by the OCIO per NRRS 2/27/A/2; destroy 5 years after the project/activity/transaction is completed or superseded, but longer retention is authorized if required for business use.

D.10.2 Interim production approvals with the documented deficiencies are maintained by the OCIO until deficiencies have been removed and the production operational approval granted.

D.11 Documentation Repository Records

D.11.1 MSFC Class I Engineering Data. Reference NRRS 8/101; **permanent** – Cut off records at close of program/project or in 3-year blocks for long-term programs/projects and transfer to records center storage. Transfer records to NARA 7 years after cut off. Special media records will be transferred in accordance with current NARA transfer instructions specific to individual formats.

D.11.2 MSFC Class II Engineering Data. Reference NRRS 8/101; **permanent** – Cut off records at close of program/project or in 3-year blocks for long-term programs/projects and transfer to records center storage. Transfer records to NARA 7 years after cutoff. Special media records will be transferred in accordance with current NARA transfer instructions specific to individual formats.

D.11.3 MSFC Technical Standards (reference MPR 8070.1). Reference NRRS 8/101; **permanent** – Cut off records at close of program/project or in 3-year blocks for long-term programs/projects and transfer to records center storage. Transfer records to NARA 7 years after cut off. Special media records will be transferred in accordance with current NARA transfer instructions specific to individual formats.

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D.11.4 Memorandums of Understanding between the MSFC Repository and specific MSFC Program/Project Offices that define responsibilities for documentation and records support. Reference NRRS 1/6/B; **permanent** – Retire to Federal Records Center 2 years after expiration. Transfer records to NARA 10 years after expiration. MSFC Repository retains the record copy.

D.11.5 All other documentation managed by the MSFC Documentation Repository is considered non-record copies only. Any records management responsibility for these documents is with the originating organization/office.

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APPENDIX E. Printing, Reproduction, and Self Service Copying Services Guidance

E.1 Production Standards

E.1.1 Standard turnaround times for printing requests are:

E.1.1.1 Rapid response time is 1 day for duplicating tasks less than 5,000 total B&W page units and less than 1,000 total color units.

E.1.1.2 Standard response time is 3 days for duplicating tasks of 5,000–25,000 total B&W units and up to 1,000 total color units.

E.1.1.3 Large job response time is 5 days for duplicating tasks of more than 25,000 total B&W units. Color duplicating of greater than 1,000 total color units is procured through the MSFC Printing Office from GPO commercial sources.

E.1.2 Delivery schedules for all requests requiring outsourcing to the GPO are jointly established by the MSFC Printing Office and the customer.

E.1.3 All requests that require less than the standard turnaround times need the approval of the MSFC Printing Officer prior to beginning. Expedited service usually incurs more cost.

E.2 Acceptable Use of Color Examples

E.2.1 Maps and technical diagrams where color is necessary for clarity, such as global hydrology computer weather models or solar study images.

E.2.2 Object identification such as microgravity crystal growth, medical specimens, materials and metal structure, special equipment, flags, or uniforms, etc.

E.2.3 Special promotional areas such as personnel recruitment, safety promotion, fire prevention, or International Organization for Standardization (ISO) 9000, etc.

E.3 Publication Standards

E.3.1 It is appropriate that all publications, documents, forms, and other material printed for the Government bear the name of the Agency, the Center, date of publication, and the name(s) of organizational elements issuing or publishing material. Organizational elements are subordinate to the name of the Agency, in type size, and/or position.

E.3.2 Publications are not to contain the names of individuals who assisted in their preparation except for scientific and technical reports and technical standard products.

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E.3.3 Distribution to all employees and onsite contractors, or Standard Distribution List (SDL) – 6, is to be reproduced on white paper only (for recycling purposes) unless otherwise established.

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APPENDIX F. REFERENCES

Architectural and Transportation Barriers Compliance Board EIT Accessibility Standards,
36 CFR Part 1194

NPD 2200.1, “Management of NASA Scientific and Technical Information”

NPD 2521.1, “Communications and Material Review”

NPD 8610.6, “Graphic Markings on Space Transportation Vehicles, U.S. Components of the
International Space Station Component Systems, and Payloads”