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NASA Procedural Requirements

NPR 2200.2E

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COMPLIANCE IS MANDATORY FOR NASA EMPLOYEES

Requirements for Documentation, Approval and Dissemination of Scientific and Technical Information

Responsible Office: Office of the Chief Information Officer

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Preface

P.1 Purpose

- a. This directive establishes the obligations for publishing, disseminating, and safeguarding NASA scientific and technical information (STI) under the policy set forth in NASA Policy Directive (NPD) 2200.1, Management of NASA Scientific and Technical Information (STI).
- b. In accordance with the National Aeronautics and Space Act, 51 United States Code (U.S.C.) § 20112(a)(3), NASA will “provide for the widest practicable and appropriate dissemination of information concerning its activities and the results thereof.” Unless a determination is made that public dissemination of information will be prohibited or restricted pursuant to U.S. statute, regulation, or Agency policy, NASA information is made broadly available to the public. NASA's responsibilities include safeguarding sensitive and restricted research and development results and preserving STI to ensure future accessibility.
- c. Under the Agency’s Office of Chief Information Officer, the STI Program manages, disseminates, safeguards, and preserves NASA STI for use by NASA, NASA contractors, NASA grantees, other U.S. Government agencies and their contractors, and the public. In doing so, the STI Program supports efforts to advance the Agency’s goals in science, exploration, technology development, and aeronautics.

P.2 Applicability

- a. This NPR is applicable to NASA Headquarters and all NASA Centers, including Component Facilities, and Technical and Service Support Centers.
- b. This language applies to the Jet Propulsion Laboratory (JPL), a Federally Funded Research and Development Center, other contractors, recipients of grants, cooperative agreements, or other agreements only to the extent specified or referenced in the applicable contracts, grants, or agreements.
- c. This NPR applies to all STI published, disseminated, and presented, that contain NASA-sponsored or NASA-funded STI except as excluded in this directive. This NPR also applies to STI presented internally when foreign persons are present.
- d. In this directive, 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.
- e. In this directive all document citations are assumed to be the latest version unless otherwise noted.

P.3 Authority

- a. National Aeronautics and Space Act, 51 U.S.C. § 20101 et seq.
- b. NPD 2200.1, Management of NASA Scientific and Technical Information (STI).

P.4 Applicable Documents and Forms

- a. Export Control Reform Act of 2018, 50 U.S.C. §§ 4801-4852.
- b. Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, 2 CFR 200.
- c. Grants and Cooperative Agreements, 2 CFR 1800.
- d. Controlled Unclassified Information, 32 CFR pt. 2002.
- e. NASA Federal Acquisition Regulation Supplement, 48 CFR pt. 18.
- f. NPD 1490.1, NASA Printing, Duplicating, and Copying Management.
- g. NPR 1441.1, NASA Records Management Program Requirements.
- h. NPR 1600.2, NASA Classified National Security Information.
- i. NPR 2190.1, NASA Export Control Program.
- j. NPR 2810.1, Security of Information Technology.
- k. NPR 7120.7, NASA Information Technology and Institutional Infrastructure Program and Project Management Requirements.
- l. NASA Interim Directive (NID) 1600.55, Sensitive But Unclassified (SBU) Controlled Information.
- m. NID 2810.135, Controlled Unclassified Information.
- n. NAI 2190.1, NASA Export Control Program Operations Manual.
- m. NF-1676, NASA Scientific and Technical Information Document Availability Authorization, Electronic Form.
- n. NF-1679, Disclosure of Invention and New Technology (see also <http://invention.nasa.gov>).

P.5 Measurement/Verification

a. To assess compliance with the STI requirements set forth in this NPR, the STI Program reviews trends periodically. Key measurements include:

(1) Repository curation:

(a) Quantifies the annual transfer of STI to the National Archives for preservation in accordance with NPR 1441.1, NASA Records Management Program Requirements.

(b) Maintains an active authorization to operate in accordance with NPR 2810.1, Security of Information Technology.

(2) Compliance:

Tracks Agency conformity with the requirements of this NPR.

(3) Mission support:

(a) Assess STI services to NASA organizations, other Federal agencies and the public in support of mission goals.

(b) Evaluates the STI Program's capability to provide excellence in customer service.

P.6 Cancellation

NPR 2200.2D, Requirements for Documentation, Approval, and Dissemination of NASA Scientific and Technical Information, dated September 7, 2016.

Chapter 1: Introduction

1.1 General

1.1.1 This NPR provides the high-level, basic procedures and requirements for meeting NASA's obligation to manage, disseminate, safeguard, and preserve NASA STI in accordance with established governance.

1.1.2 It is the responsibility of every NASA employee, contractor, grantee, or other award/agreement recipient to comply with applicable Federal laws, regulations, executive orders, agreement/award instruments, and Agency policies associated with publishing research performed by or for NASA.

1.1.3 The STI Program, in the Office of Chief Information Officer, manages the requisite practices and services to obtain release and dissemination approval.

1.1.4 The basic procedures necessary to fulfill the requirements of this NPR are contained in STI Procedural Instructions. Internal NASA users may access these instructions on the STI Program's internal knowledge base on SharePoint: [STI Procedural Instructions](#).

a. The STI Procedural Instructions includes details and resources previously contained in earlier versions of this NPR. Resources including, but not limited to, distribution notifications, useful checklists, and STI Report Series templates can be found in the knowledge base.

b. Users external to NASA may access STI Procedural Instructions from <https://sti.nasa.gov>, or for additional clarification, they may coordinate with technical/grant/cooperative agreement officers and/or Center STI personnel.

1.1.5 The STI Program provides NASA Form (NF)-1676, NASA Scientific and Technical Information Discovery System (STRIVES), the required process for NASA authors or any NASA employee seeking to disseminate "NASA STI" (see Section 2.1).

a. Authors ensure all issues are resolved and that requisite export control and legal approvals, data protection measures, and professional and technical reviews are applied prior to information being disseminated or released by completing the NF-1676.

b. Contractors, grantees, and other award/agreement recipients shall adhere to the clauses in their agreements. 1.1.6 Each Center's STI Manager or other supporting personnel are available to assist authors in preparing research for approval and dissemination. Additional details and resources are available at <https://sti.nasa.gov/>.

Chapter 2. Dissemination of NASA Scientific and Technical Information

2.1 Scientific and Technical Information

2.1.1 STI is the analyses of data and facts and resulting conclusions of basic and applied scientific, technical, and related engineering research and development.

2.1.2 NASA STI is derived from NASA activities.

a. NASA STI includes information authored by a NASA employee as part of the employee's official duties, or STI coauthored by a NASA employee and a non-NASA employee.

b. Contractors, grantees or cooperative agreement holders shall adhere to data and publishing rights requirements specified in their respective agreements.

c. Contracting and grant officers preparing agreements shall ensure any restrictions or limitations placed on NASA contractors and grantees regarding the publication, dissemination, or presentation of STI produced under a contract, grant or any other agreement are consistent with NASA Federal Acquisition Regulation Supplement, 48 CFR pt. 18; 2 CFR 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards; and Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, 2 CFR 1800.

d. Types of NASA STI may include technical publications and reports; abstracts; journal articles, including preprints and accepted manuscripts; meeting, workshop, and conference publications and presentations; conference proceedings; and preliminary STI, including any of these examples that will be uploaded to a public website or that exist in visual documentation formats.

2.1.3 NASA disseminates STI pursuant to public access policies consistent with NPD 2230.1, Research Data and Publication Access, and in keeping with Federal laws, regulations, and Agency policy that require safeguarding restricted or sensitive information.

2.2 Obtaining STI Release Authorization

2.2.1 Authors, meaning NASA employee authors or any NASA employee seeking to disseminate NASA STI as defined herein, shall not release NASA STI through any public channel or media without submitting and obtaining an approved NF-1676.

a. Authors shall complete the NF-1676 review process prior to internal or external release of STI where foreign persons may be present.

b. Authors who complete the NF-1676 review process shall ensure that information is properly reviewed, marked, disseminated, and archived by NASA.

2.2.2 Completion of the NF-1676 review process ensures NASA does not release information to which public access may be prohibited, restricted, or limited in accordance with Controlled Unclassified Information (CUI), 32 CFR pt. 2002. Refer to NID 2810.135, Controlled Unclassified

Information, for more information on CUI.

2.2.3 All authors who intend to publish and disseminate NASA STI under the direction of NASA, meaning deliverable obligations required under the terms of a contract, grant, or other cooperative agreement requirements, shall do so via the NF-1676.

a. All contractor, grantee and cooperative agreement recipients shall coordinate with technical management or the CO/COR/GO/GTO and Center STI personnel to select a suitable publishing channel for releasing the STI.

2.2.4 All NASA employees producing or authoring STI shall uphold the responsibility to review data for compliance with the laws and regulations governing STI distribution restrictions. See NID 2810.135 and NPR 2190.1, NASA Export Control Program.

2.3 Exclusions from NPR 2200.2

Not all information released by NASA falls under the purview of STI. Exclusions to NPR 2200.2 requirements are:

a. Software releases, see NPR 2210.1, Release of NASA Software. Go to <https://software.nasa.gov> for more information and to access a list of center software points of contact.

b. Freedom of Information Act requests, see Freedom of Information Act, 5 U.S.C. § 552.

c. Data sets independent of published/publishing NASA STI, see NPR 2190.1, as these data do require an export control review.

d. Mishap investigations, see NPR 8621.1, NASA Procedural Requirements for Mishap and Close Call Reporting, Investigating, and Recordkeeping.

e. Policy/procedural or operational documentation, see NPR 1400.1, NASA Directives and Charters Procedural Requirements.

f. Safety standards, reference Agency-level safety and mission assurance standards.

g. Education and public outreach, see NPD 2521.1, Communications and Material Review.

h. New technology/invention disclosure, see NPR 2091.1, Inventions Made by Government Employees.

i. Technology transfer, see NPR 7500.2, NASA Technology Transfer Requirements.

j. STI specifically covered under a Space Act Agreement (SAA), see NPD 1050.7, Authority to Enter into Partnership Agreements.

k. STI released or published by NASA civil servants when the STI is produced on their own behalf, using information (NASA or otherwise) already available to the public, and not part of their official Government duties (such as in the case of graduate coursework, theses, or dissertations). To confirm this status, consult with Center STI personnel.

2.4 Declassified STI

2.4.1 Center personnel responsible for declassified STI shall send those publications to the NASA STI Program with a properly completed and signed NF-1676.

2.4.2 Center personnel responsible for declassified STI shall properly mark those publications as unclassified (revised cover, title page, and page markings) and include documentation authorizing the declassification as outlined in NPR 1600.2, NASA Classified National Security Information.

2.4.3 Center personnel responsible for declassified STI shall ensure compliance with NID 2810.135 should CUI requirements apply to the unclassified document.

Chapter 3: Requirements

3.1 NASA Mission Directorate Associate Administrators (MDAAs), Mission Support Directorate Associate Administrators (MSDAAs), the Agency's Chief Engineer, Chief Scientist, Chief Technologist, and Center Directors shall:

- a. Ensure activities under their purview comply with NPD 2200.1 and this NPR.
- b. Ensure STI under their purview receives a technical review (see section 4.3), as required by this NPR.
- c. Maintain awareness of the NASA Guidelines for Quality of Information (<https://www.nasa.gov/offices/ocio/qualityinfo/index.html>).
- d. Serve on the Agency STI Board of Advisors. In this capacity, those serving on the Agency STI Board of Advisors shall:
 - (1) Provide feedback to the STI Program's current and future initiatives.
 - (2) Coordinate with the research and development producers, users and Center STI Managers within NASA.

3.2 NASA's Chief Information Officer (CIO) shall:

Grant the Information Management Program's (IMP) Program Executive programmatic and technical authority over NASA's STI Program.

3.3 The Office of the Chief Information Officer's (OCIO) IMP STI Program Executive shall:

- a. Determine the strategic direction and approve the program plan for the STI Program and ensure the plan aligns with IMP strategy and the IT Strategic Plan.
- b. Coordinate the Agency's STI strategy with the NASA CIO, MDAAs, Office of the General Counsel, Chief Engineer, Chief Scientist, Chief Technologist, Center Directors, and MSDAAs.
- c. Maintain oversight for STI Program Office activities.
- d. Assess the effectiveness of the STI Program per Section P.5 of this directive.

3.4 The STI Program Office shall:

- a. Acquire, collect, organize, disseminate, and archive approved STI.
- b. Coordinate with the STI Program Executive to recommend STI policy and procedures via NPD 2200.1 and this NPR.
- c. Implement approved policy and procedures.
- d. Ensure NASA STI is shared with entities as required by U.S. statute, such as, but not limited to, NARA, the Government Publishing Office (GPO), the Federal Depository Library Program, the National Technical Information Service (NTIS), and other national and international partners.
- e. Operate and manage an Agency-level STI Program in accordance with NPR 7120.7, NASA Information Technology and Institutional Infrastructure Program and Project Management

Requirements.

- f. Coordinate the development, operation, and maintenance of a digital collection of NASA STI.
- g. Ensure that the IT system collecting NASA STI for the STI Program has a security assessment and an authorization to operate in accordance with NPR 2810.1 to approve, curate, store, and transmit NASA information, and at a security category for CUI/SBU information in accordance with NID 2810.135 and NID 1600.55, Sensitive But Unclassified (SBU) Controlled Information, respectively.
- h. Appoint personnel to serve on Agency-level and external teams pertinent to STI.
- i. In consultation with Agency level points of contact, facilitate the appeals process at the Agency level for requests about NF-1676 dissemination decisions when raised above the Center level.
- j. Conduct periodic reviews to ensure that all Centers are in compliance with NPD 2200.1, NPR 2200.2, and implementation of the NF-1676 review process. Review findings are reported to each Center Director and the Center STI Manager.
- k. Provide products and services for NASA related to STI content management of research and development information.
- l. Coordinate with other NASA offices and Federal agencies to facilitate compliance with open access policy outlined in NPD 2230.1 in regard to STI publications.
- m. Maintain and operate an Agency-wide approval process for NASA, the NF-1676, in accordance with STI Program requirements.

3.5 Center Directors shall:

- a. Ensure that all STI activities under their cognizance are performed in accordance with NPD 2200.1 and this NPR.
- b. Designate individuals to serve as the Center STI Manager and as the Center STRIVES Representative.
- c. In coordination with the Center STI Managers, establish and implement a plan to ensure awareness of the STI review requirements contained in this NPR.
- d. Ensure that corrective actions associated with improvement areas cited in the yearly compliance review are implemented at their Centers.

.6 Center STI Managers shall:

- a. Ensure that the Center is aware of policies and procedures indicated in NPD 2200.1 and this NPR. This awareness includes training in STI and information security protection for STI.
- b. In coordination with Center Directors, establish and implement a plan to ensure awareness of the STI review requirements contained in this NPR.
- c. Ensure that Center STI and its approved NF-1676s are submitted to the NASA STI Program.
- d. If the STI originated from a NASA contract or grant, coordinate with the Contracting Officer (CO), Contracting Officer's Representative (COR), Grant Officer (GO), and/or the Grant Technical Officer (GTO) to determine NASA release/publication approvals for the STI.

- e. Ensure that NASA STI Program has STI from their Centers, as well as the corresponding NF-1676 forms, before the documents have reached the end of their retention periods and are discarded.
- f. Ensure that the Center documents the number, types, titles, authors, and availability of STI that is published or released external to the Agency by, or at the direction of, the Center.
- g. Participate in STI compliance reviews and institute any needed improvements following the results of these reviews.
- h. Monitor and ensure timely (prior to needed release date) notification is given to authors, initiators, and approvers of STI, including, as a minimum, the disposition of the STI, either approved or disapproved, to help ensure that only approved STI is released.
- i. On behalf of authors, coordinate dissemination determination change requests or appeals with the STI Program Office.

3.7 Center STRIVES Representatives shall:

- a. Coordinate with the Center's authors, STI Manager, COs, CORs, GOs, GTOs, and managers who approve STI in order to track, file, and transfer the NF-1676 and its associated STI, after approval, to NASA STI Program.
- b. Monitor and take action on reports of rejected NF-1676 forms and other STRIVES challenges in coordination with the STI Program Office.
- c. Ensure that all NF-1676 forms have received a quality review before the STI is sent to NASA STI Program.

3.8 Managers who approve STI at Centers shall:

- a. Ensure that STI in their areas of responsibility receives technical review and management review prior to NF-1676 submission, NASA publication, release outside the Agency, or being made available to foreign persons.
- b. Consult with the Center's STRIVES Representative, COs, CORs, GOs, GTOs, and STI Manager, as necessary, to ensure STI received proper reviews.
- c. Be responsible for coordinating the quality of their publications with this NPR.

3.9 Center export control reviewers of assigned STI release requests shall:

- a. Assess and ensure compliance of STI products, in accordance with NPR 2190.1.
- b. Assist any program and agency personnel involved in the production and management of STI seeking guidance in determining the export controls for publishing and disseminating STI.

3.10 Center legal personnel reviewing STI release requests shall, upon requests for counsel:

- a. Provide consultation services on conformity of information with laws and regulations governing distribution and intellectual property rights (copyrights and intellectual property such as trademarks or patents).
- b. Assist any program and agency personnel involved in the production and management of STI

seeking guidance in determining the restrictions or limitations for publishing and disseminating STI.

3.11 COs shall:

- a. Receive the STI (and additional STI reports required by the contract) from contractors, and submit to the COR for review and acceptance.
- b. Upon receipt of research products, validate that materials meet terms and conditions and follow instructions for meeting NF-1676 document release requirements.
- c. Ensure that STI requirements and information security protection are consistent with Federal regulations, this NPR, and NID 2810.135, and that the requirements and protection are placed in NASA contracts.

3.12 CORs shall:

- a. Coordinate with the CO regarding contract issues and with the Center STI Manager regarding publication issues.
- b. If the Center elects to publish or release NASA STI external to the Agency or will make it available to foreign persons, ensure that contractor-produced STI receives an NF-1676 review.
- c. Notify the contractor if and when the STI is approved for publication by NASA.

3.13 GOs/GTOs, and other cooperative agreement officers shall:

- a. Receive, review, and accept STI from grantees (or via the NASA Shared Services Center, or NSSC).
- b. Upon receipt of research products, validate that materials have been uploaded to NTRS per agreement requirements; assess whether any other materials, such as reports, need to be uploaded to NTRS; and determine if any other review or requirements are warranted.
- c. Ensure that STI requirements consistent with 48 CFR pt. 18, are placed in NASA grants and cooperative agreements.

3.14 Authors of NASA STI shall:

- a. Coordinate with technical management or CO/COR/GO/GTO, Center STI personnel, and [STI Procedural Instructions](#) to select a suitable publishing channel for releasing the STI.
- b. Publish or otherwise release external to NASA (including via the Internet) STI only if it has been reviewed at the correct organizational level for technical accuracy and conformance with applicable law, policy, and publication standards, and has been approved for release as prescribed by this NPR.
- c. When STI is believed to be CUI, coordinate with the applicable NASA designating official in accordance with NID 2810.135 so that a determination of CUI status can be made prior to the NF-1676 review.
- d. Regardless whether or not STI is being authored and intended for release, when sensitivity of data is in question, assess and identify the STI as CUI.
- e. When a NASA author, release STI only when reviewed and approved via NF-1676.
- f. When a non-NASA author, coordinate with the CO/COR to initiate the NF-1676 when NASA

plans to release the document, or if the contractor author will release it for or on behalf of NASA.

g. NASA and non-NASA authors alike shall comply with applicable Agency policy set forth in NPD 2230.1 regarding open access requirements and for releasing accepted manuscripts of journal articles to the STI repository. See <https://sti.nasa.gov> for more information.

h. All authors shall ensure their STI is 508-compliant, in accordance with Section 508 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794d, regardless of the type of STI or scientific and technical channels. For more information, see <https://section508.gov/create>, or [visit STI Procedural Instructions](#) for additional details.

Chapter 4. General Procedures: Documentation, Approval, and Dissemination

4.1 General Procedures Introduction

4.1.1 NASA STI shall be made available to the public unless the information should be restricted by law (see section 4.4).

4.1.2 NASA's documentation, approval, and dissemination procedures are based on statutory requirements borne out of federal law and government regulations (see P.3 Authority and P.4 Applicable Documents and Forms).

4.1.3 To ensure compliance, the Agency's STI Program shall provide the requisite means through which all STI approval and release requests are processed, the [NF-1676](#).

4.1.4 The NF-1676 is the approval workflow that routes author requests to disseminate and publish NASA STI. Authorized approvers in the NF-1676 workflow routing may include managers, legal, and export control. The specific list of approvers may vary depending on the details of the STI.

4.1.5 Prior to NASA releasing or disseminating STI, all authors shall obtain a completed, approved NF-1676 (see figure 4.1), NASA Scientific and Technical Information Discovery System, STRIVES. As part of completing the NF-1676, authors shall coordinate with technical management and/or the Contract/Grant Officer and/or STI personnel to assess STI under development to:

- a. Select a publication channel, or venue through which the STI is planned to be released. See section 4.2.
- b. Complete requisite technical/management/editorial reviews and any other applicable programmatic approvals or authorizations. See section 4.3.
- c. Confirm data rights in contract or grant clauses regarding release of STI by contractors and grantees. See section 1.1.4.b.
- d. Initiate and follow through on the NF-1676 process requirements for obtaining approval to release or disseminate. The final quality assurance sign-off by Center STI personnel or designee confirms a completed NF-1676.
- e. Determine any potentially applicable distribution or printing needs.



Figure 4-1. NASA STI passes through a series of gates prior to being released. Center STI personnel are available to assist with understanding the above outlined actions and processes.

4.1.5 STI Program contact information: E-mail:

<https://sti.nasa.gov/sti-contact-form/?RequestType=General>

4.2 Selecting a Publishing Channel

4.2.1 NASA and NASA-funded authors may publish in either the NASA STI Report Series or through non-NASA channels, such as periodicals, oral presentations with written or visual documentation, or proceedings of scientific and technical conferences and workshops.

a. Authors shall initially select the publishing channel, including evaluating open access publications, in consultation with technical management or the COR or GTO (if applicable) and/or

Center STI personnel.

b. Authors select a publishing channel based on the content of the document and the intended readership and is subject to approval by technical management within their organizations or the COR or GTO.

c. Authors shall clearly indicate NASA's support in all externally published STI featuring NASA research, development, and related efforts, preferably as a first-page footnote unless a style requirement specifies indicating acknowledgments in another manner.

d. When including NASA and any other government, industry, or academic logos, authors shall conform to existing NASA guidance on use of logos. See [NASA's Office of Communications Policies and Guidance](#) page to access the NASA Graphics Standards Manual or seek guidance from center STI personnel.

e. Because style and format standards for NASA STI publications vary due to media output or discipline, authors shall consult with Center STI personnel for guidance. Format requirements specific to the STI Report Series publication channel are detailed in the [STI Procedural Instructions](#).

4.2.2 Authors who choose to publish through the NASA Report Series shall select, in consultation with technical management or the COR or GTO, a document type from the NASA STI Report Series listed subsequently and further detailed in the [STI Procedural Instructions](#). The following are brief descriptions of the document types available:

a. The Technical Publication (TP) series includes reports of completed research or of a significant phase of research that present the results of NASA programs. TPs usually include extensive data or theoretical analysis, but they may also be compilations of significant scientific and technical data or information deemed to be of continuing reference value. TPs are akin to professional or technical publications that are peer-reviewed; however, TPs have less stringent limitations on manuscript length and extent of graphic presentations often imposed by professional and society publishers.

b. The Technical Memorandum (TM) series records scientific and technical findings that are preliminary or of specialized interest (e.g., quick-release reports, working or white papers, and bibliographies) that contain minimal annotation. TMs do not contain extensive analysis.

c. The Contractor Report (CR) series includes reports of scientific and technical findings by NASA-sponsored contractors and grantees as well as dissertations or theses.

(1) When funded by NASA, applicable interim and final contract, grant, or cooperative agreement reports shall be published by as a CR.

(2) Contractors or grantees shall submit STI such as final reports, when specified in the contract, grant, or cooperative agreement, in accordance with their respective contractual requirements, to the NASA CO, COR, GO, or GTO of record.

(3) Reports authored by contractors or grantees shall be processed through the NF=1676 process by the cognizant NASA manager and CO, COR, GO, or GTO if further dissemination is determined to be in the interest of the Agency.

d. The Conference Publication (CP) series contains collected papers from scientific and technical conferences, symposia, seminars, or other meetings sponsored or cosponsored by NASA.

e. Meeting organizers of NASA-sponsored conferences shall collect permissions from non-NASA

authors to allow NASA to publish and distribute content contributed to the proceedings that will be released and disseminated in any manner.

f. The Special Publication (SP) series records scientific, technical, or historical information from NASA programs, projects, and missions and is most often concerned with subjects having substantial public interest.

g. The Technical Translation (TT) series consists of English-language translations of non-English scientific and technical material pertinent to NASA's mission.

4.2.3 Authors shall submit NASA preprint STI manuscripts, intended for journal publication acceptance, for approval via NF-1676 prior to submission to the periodical (contractors and grantees adhere to the requirements/terms of their agreements).

a. STI, once accepted for publication, includes changes requested by the publisher and is referred to as an "accepted manuscript." Additional policy relative to NASA's expectations regarding access requirements and accepted manuscript handling can be found in NPD 2230.1.

b. Upon acceptance for publication in a periodical, authors of journal articles shall fulfill public access requirements by providing the author's accepted manuscript version via NF-1676. (See the [STI Procedural Instructions](#) for guidance on an abbreviated submission when a preprint NF-1676 has already been submitted for the same work.)

c. Authors shall seek out consultation of legal counsel for any necessary questions regarding copyright of STI in materials being published in a periodical. Based on Subject Matter of Copyright: United States Government Works, 17 U.S.C. § 105, NASA may use and distribute preprints, and they may be released to STI repositories, whether authored by a government employee or by a contractor, grantee, or other agreement recipient.

d. Authors who choose to publish in a periodical may discover charges imposed by publishers. When NASA STI, authors shall coordinate payment through the NASA organization sponsoring the research, with whom payment responsibility lies, at the earliest stage possible.

4.2.4 When NASA STI, authors using STI in an oral presentation that is to be delivered publicly shall submit the materials for approval prior to the presentation via the NF-1676 process.

a. When NASA STI, authors planning to deliver internal presentations in the presence of a foreign person shall submit the materials for approval prior to the presentation via the NF-1676 process.

b. When NASA STI, authors engaging in planned, scheduled topic discussions that do not include written or visual documentation shall submit an abstract for approval prior to the presentation via the NF-1676 process.

4.2.5 When NASA STI, authors shall submit an NF-1676 for any materials prepared for release or presentation at any symposia, virtual or in person, including supporting or embedded visual documentation, video, audio, or other interactive components.

a. When NASA STI, authors shall include in symposia presentations or papers the copyright notice when applicable (e.g., joint works, NASA employee/government works, or those prepared under contract, grant or cooperative agreement). See the [STI Procedural Instructions](#) for examples.

b. Authors shall present sensitive information only during symposia whose venues have been secured for presentation of restricted information. If there is any concern that some attendees are not

known or authorized to receive restricted technical data or technology, meeting discussions and presentation material should be limited to that which is in the public domain.

4.3 Organizational Review and Approval

4.3.1 The sponsoring organization or program shall provide professional or technical review and management approval of STI. Requirements may vary depending on the STI's content and publishing channel (see section 4.2).

4.3.2 Authors shall obtain professional, technical, or any necessary management reviews and approvals per Center guidance prior to submission of an NF-1676 and its associated STI. See definitions of these review types for more information and seek guidance from Center STI personnel.

- a. For assistance in determining need for and obtaining professional or technical reviews, authors shall consult with organizational management.
- b. Authors shall ensure STI Report Series documents receive the review treatment specified for each report type in the [STI Procedural Instructions](#).

4.3.3 Authors shall safeguard restricted or sensitive information in accordance NPR 2190.1 and NID 2810.135, NASA IT security requirements, and this NPR, while obtaining pre-NF-1676 reviews and approvals.

4.3.4 Authors and reviewers/management approvers shall adhere to the standards of authorship provided below.

- a. Author order. Because of the complexity of scientific and technical work, the majority of STI planned for release has multiple authors. Authors' names typically appear in a sequence that indicates their respective responsibilities for the reported results; that is, the first author is the chief contributor and writer, and other authors follow in the order of their responsibilities/contributions. This is the preferred method for NASA STI Report Series. For NF-1676 submissions of third party publisher content, the publisher's preference is acceptable.
- b. Authors. Authorship of NASA STI will be reserved for persons participating directly in performance of the work from which research results are derived and who can effectively defend the main technical content to a peer group. Authors are those who make significant intellectual or theoretical contributions to overall research and development activities, including system or experimental design, prototype development, and analysis and interpretation of data. Other significant authorship contributions may involve drafting the publication or reviewing and revising for intellectual content, as well as approving a final version as accepted for publication, including validating references.
- c. Contributors. Recognizing technical or professional areas of support by individuals other than authors, when significant, is to be done in an acknowledgment section. Acknowledging technical editorship is justified when an editor has contributed scientific and technical expertise and judgment. It is also important to recognize significant contributions directly related to substantive professional editorial support or publication preparation.
- d. References: References to works by others are to be cited in a list of references/bibliography.

4.4 NF-1676 Review and Approval

4.4.1 The NF-1676 is NASA's compliance review for the publication, dissemination, and presentation of NASA STI by or for NASA through any channel or media.

4.4.2 The NF-1676 process protects authors and the Agency by ensuring STI is disseminated in a manner consistent with U.S. laws and regulations, federal information policy and publication standards, intellectual property rights, and technology transfer protection requirements.

4.4.3 The NF-1676 review determines if STI is subject to one or more of the following restrictions, and therefore requires restricted access.

4.4.3.1 Export control regulations specify categories of technical data that may not be exported or disclosed to foreign persons, in the United States or abroad, without proper authority (see NPR 2190.1, NASA Export Control Program). Export control limitations are applied to information subject to:

- a. Export Control Reform Act of 2018, 50 U.S.C. §§ 4801-4852.
- b. Export Administration Act of 1979, 50 U.S.C. app. 2401 et seq.
- c. International Traffic in Arms Regulations 22 CFR pts. 120 - 130, ITAR.
- d. Export Administration Regulations, 15 CFR pts. 730 - 774, EAR.

4.4.3.2 CUI is information required to be protected by statute or in accordance with an agreement (Controlled Unclassified Information, 32 CFR pt. 2002). NASA requirements for handling CUI data are provided in NID 2810.135. More details on CUI marking can be found from the OCIO here: <https://www.nasa.gov/content/controlled-unclassified-information>.

a. NASA STI restricted under ITAR and EAR will be handled and curated as CUI by default unless a designated NASA official instructs otherwise.

b. Personally identifiable information (PII) is information which can be used to distinguish or trace an individual's identity. Privacy Act- NASA Regulations, 14 CFR pt.1212, sets forth requirements for the management of personal information contained in federal records. See NPR 1382.1, NASA Privacy Procedural Requirements, for details on PII.

c. Proprietary information refers to legal property rights that are owned by an individual that exclude others from using, selling, reproducing, displaying, or distributing the information. For the purposes of the NF-1676 review process and this NPR, proprietary STI contains:

- (1) limited rights data received as a deliverable under a Government contract,
- (2) Small Business Innovation Research (SBIR) data,
- (3) trade secret/confidential commercial information,
- (4) copyrighted information,
- (5) information disclosing inventions, and
- (6) any other information subject to laws governing public access to information as set forth in 51 U.S.C. § 20131(b).

4.4.4 Authors shall include notices on documents containing sensitive or restricted-access STI that are applicable to all valid restrictions along with any associated expiration date. Consult with STI personnel or see the [STI Procedural Instructions](#) for details and information on accessing templates.

a. Document marking notices for SBU/CUI information will be in accordance with requirements set forth in NID 1600.5 and NID 2810.135, respectively.

b. Information regarding document marking notices for export control information are provided by NAI 2190.1, NASA Export Control Program Handbook..

c. Document marking notices for SBIR/STTR, trade secret, and copyright can also be found in the [STI Procedural Instructions](#).

4.4.5 Document distribution limitations.

4.4.5.1 STI is released to the public unless restrictions are identified during the NF-1676 review. STI is released to the widest audience public audience possible; however, STI containing sensitive content is protected and is therefore distributed to limited audiences. STI released after October 1, 2021 will follow the categories set forth by CUI policy. STI releases predating October 1, 2021, will retain the legacy distribution categories. The legacy categories for release of STI are:

a. Publicly releaseable (no distribution limitation).

b. Limited:

(1) U.S. Persons.

(2) U.S. Government Agencies and U.S. Government Agency Contractors Only.

(3) U.S. Government Agencies Only.

(4) NASA Contractors and U.S. Government Agencies Only.

(5) NASA Personnel and NASA Contractors Only.

(6) NASA Personnel Only.

(7) Available Only With Approval of Issuing Office (Mission Directorate or NASA Center).

4.4.5.2 Authors required to use restrictions other than those specified herein shall coordinate requests with the Center STI Manager to receive prior approval from export control and legal counsel.

4.4.5.3 Authors with appeals for revising dissemination determinations shall submit via the NF-1676 process.

4.4.5.4. Authors shall coordinate dissemination appeals through the Center STI Manager.

4.4.5.5 The process to submit invention disclosures, NF-1679, Disclosure of Invention and New Technology, and point(s) of contact at each NASA Center are available at the eNTR website: <http://invention.nasa.gov>.

4.5 Distribution, Archiving, and Printing

4.5.1 NASA disseminates STI electronically on the NASA Technical Reports Server located at <https://ntrs.nasa.gov/>.

4.5.2 The STI Program archives its holdings per requirements set forth in NPR 1441.1.

4.5.3 Hard copy printing or distribution of STI is the responsibility of the Center of origin. Publications are distributed and printed through Center duplicating or copying facilities or the GPO, in accordance with NPD 1490.1, NASA Printing, Duplicating, and Copying Management.

Appendix A. Definitions

Abstract. An abstract summarizes, usually in one paragraph of 300 words or less, the major aspects of an entire paper in a prescribed sequence that includes: 1) the overall purpose of the study and the research problem(s) investigated; 2) the basic design of the study; 3) major findings or trends found as a result of the analysis; and, 4) a brief summary of interpretations and conclusions.

Agency. Unless otherwise qualified, the term Agency refers to NASA.

Accepted manuscript. Version of the journal article that has been accepted for publication by a journal publisher and includes changes requested by the publisher and made by the author during the peer-review process. It typically includes the same content as the published article in the journal but does not include the publisher's form or format.

Availability. Degree of authorized access to a given document based on approved distribution limitations.

Center. This generic reference is all encompassing to mean ALL NASA centers and facilities, including JPL. Classified National Security Information (CNSI). Information that is protected against unauthorized disclosure IAW Executive Order 13526, "Classified National Security Information," and is marked to indicate its classified status when in documentary form.

Conference paper full-text document. Complete papers (not just abstracts) that contain text (e.g., Introduction, Background, Apparatus, Procedure, Analysis, and Conclusions) as well as tables, figures, equations, references, and appendixes, if they are part of the complete document.

Conference presentation. Projected visuals of details, figures, and tables from a conference publication that are prepared/formatted for and presented at a physical or virtual gathering.

Copyrighted document. Document for which the exclusive legal rights under the Copyright Law have arisen (right to reproduce, modify, distribute, perform publicly, and display publicly). Copyrights are protected by the U.S. Constitution and granted by law for original works of authorship fixed in a tangible medium of expression. Copyright arises in both published and unpublished works.

Dissemination/distribution. Dissemination is normally referred to as the process by which STI is transmitted to the user community. Distribution is normally referred to as the transmittal of STI electronically or by hard copy and/or alternative media to authorized users. In this NPR, these two terms are used interchangeably. Government distribution or dissemination means, in accordance with OMB Circular A-130, Management of Federal Information Resources, the Government-initiated distribution of information to the public. Dissemination within the meaning of the Circular does not include distribution limited to Government employees or agency contractors or grantees, intra-agency or interagency use or sharing of Government information, and responses to requests for agency records under Freedom of Information Act (FOIA), 5 U.S.C. 552 .

Document Availability Authorization (DAA) Representative. See STRIVES Representative.

Document Availability Authorization (DAA) review. See STRIVES Review.

Export Administration Regulations (EAR). U.S. Export Control Regulationsl, 15 CFR pts.730-774,

administered by the U.S. Department of Commerce that require limited availability for technical data pertaining to commodities, technology, and software listed on the Commerce Control List. NASA STI reports subject to restriction under this regulation often are referred to as EAR documents.

External NASA user. Any individual who has not been provisioned via IdMAX for NASA services, including firewall access.

Foreign person. Also known as foreign national, and for the purpose of general security protection, considerations of national security, and access accountability, foreign person means any natural person who is not a lawful permanent resident as defined by 8 U.S.C. 1101(a)(20) or who is not a protected individual as defined by 8 U.S.C. 1324b(a)(3). It also means any foreign corporation, business association, partnership, trust, society or any other entity or group that is not incorporated or organized to do business in the United States, as well as international organizations, foreign governments, and any agency or subdivision of foreign governments (e.g., diplomatic missions).

Grantee. The organization that receives funding from NASA under a grant or cooperative agreement.

International Traffic in Arms Regulations (ITAR). U. S. International Traffic in Arms Regulations, 22 CFR pts. 120-130, that require limited availability for technical data that pertain to commodities, technology, and software listed on the United States Munitions List (USML). NASA STI reports subject to restriction under this regulation are often referred to as ITAR documents.

Internal NASA user. Refers to an individual who has been provisioned via IdMAX for NASA services, including firewall access.

Invention. Information on any way of doing or making things, new technology, machine, manufacture, design, or composition of matter, or any new and useful improvement thereof, or any variety of plant, which is or may be patentable under the patent laws of the United States.

Management approver. Person who understands the technical content of the STI and who can approve its publication or release; this can be a branch head, division chief, directorate manager, or other designations familiar with the content.

Management review. A management review consists of, but is not limited to, determining and instructing the need for either a professional review or a technical review, or both, ensuring submissions meet with Agency quality standards.

Misrelease. Document that has been released, published, or shared internally with foreign persons prior to the STI being approved via the NF-1676 process. A misrelease can occur in two ways: the STI is released to the public without review, or the STI was reviewed but disseminated beyond the approval parameters indicated on the final NF-1676.

NASA internal distribution. Distribution to NASA personnel, contractors and grantees, or partners who are not foreign persons and with the understanding that the STI is not permitted to be redistributed. If foreign persons will have access to the information, even if the distribution is limited, an NF-1676 review of the STI is required.

NASA STI. STI produced by NASA or under NASA funding agreements where NASA has the right to publish or otherwise disseminate the STI. For example, NASA STI includes STI authored by a NASA employee as part of the employee's official duties, STI coauthored by a NASA employee and a non-NASA employee, and STI authored by an employee of a contractor or grantee

funded by NASA where NASA has the right to publish or otherwise disseminate the STI.

NASA STI Report Series. Discrete report designations that characterize NASA and NASA contractor STI reports. The NASA STI Report Series comprises six types of publications: Technical Publication (TP), Technical Memorandum (TM), Contractor Report (CR), Conference Publication (CP), Special Publication (SP), and Technical Translation (TT).

NASA Technical Reports Server. Now known as STI Repository; contains STI approved for public release.

Open access. Publications that are made freely available to the public worldwide, with no charges imposed for access.

Personally identifiable information (PII). Information that can be used to distinguish or trace an individual's identity¹⁴ CFR pt.1212, sets forth requirements for the management of personal information contained in federal records. See NPR 1382.1, NASA Privacy Procedural Requirements, for details on PII.

Preprint. Journal article version that is submitted to the journal publisher to request acceptance and publication. Professional review. Review that may also be called editorial and content review; these are performed by individuals or groups with technical knowledge or background tempered by interdisciplinary expertise in history, education, and program management. Such reviews will assess the quality of the document content in terms of its readability, communication of information, and suitability for a particular audience without particular focus on content. Projected visual. Single image projected for viewing by a group.

Proprietary information. This term refers to legal property rights that are owned by an individual that exclude others from using, selling, reproducing, displaying, or distributing the information. For the purposes of the NF-1676 review and this NPR, proprietary STI is that containing: (1) limited rights data received as a deliverable under a Government contract, (2) Small Business Innovation Research (SBIR) data, (3) trade secret/confidential commercial information, (4) copyrighted information, (5) information disclosing inventions, and (6) any other information subject to laws governing public access to information as set forth in 51 U.S.C. § 20131(b).

Publication, verb. Process of officially releasing a NASA document for public or restricted access through print, electronic, or alternative media. Also, the resultant document.

Publicly available. Availability assigned to STI information for which distribution and use are unrestricted (i.e., unclassified/unlimited).

Reprint. Version of journal article that is published in the journal by the publisher. It will typically have the date of publication and volume number. Some Federal agencies and publishers also call these the Version of Record manuscript.

Scientific and Technical Information. NASA STI is defined as the result (the analyses of data and facts and resulting conclusions) of basic and applied scientific, technical, and related engineering research and development.

Sensitive. Unclassified information or material determined to have special protection requirements to restrict access and preclude unauthorized disclosure.

STI Manager. Person responsible for the overall Center STI program in coordination with the Technical Publications Manager and Center STRIVES Representative.

STI Repository. Previously known as NTRS; houses NASA STI that is publicly available

STRIVES Representative. Person who coordinates with Center authors, STI Manager, COs, CORs, Grants Officers, Grant Technical Officers, and managers to have the STI approved in order to track, file, and transfer the NF-1676 and its associated STI, after approval, to NASA STI Program. Accountable to the Center STI Manager.

STRIVES Review. Dissemination or release approval process by which NASA also determines which restrictions, if any, need to be placed on a document. The requisite form is NASA Form (NF)1676, NASA Scientific and Technical Information (STI) Discovery System (STRIVES), available at <https://nef.nasa.gov> (internal to NASA).

Technical Publications and Reports. Abstracts; journal articles, including preprints and accepted manuscripts; meeting, workshop, and conference publications and presentations; conference proceedings; and preliminary STI, including any of these examples that will be loaded to a public website or that exist in visual documentation formats.

Technical Review. Review that typically is performed by peers having expertise within the technical discipline of the activity or research being documented. These reviews assess the technical integrity and merit of the activity or research being performed and the results being documented without regard to the effectiveness of the document at communicating the information.

Third-party content. Content that does not originate from Federal Government employees or via Federal Government-funded work.

U.S. person. Person who is a lawful permanent resident as defined by 8 U.S.C. 1101(a)(20) or who is a protected individual as defined by 8 U.S.C. 1324b(a)(3). This includes lawful permanent residents (i.e., holders of green cards) or persons admitted with refugee status to the United States (see NPR 1600.1, Chapter 10). It also means any corporation, business association, partnership, society, trust, or any other entity, organization, or group that is incorporated to do business in the United States. It also includes any governmental (Federal, state, or local) entity.

Appendix B. Acronyms

CFR	Code of Federal Regulations
CIO	Chief Information Officer
CNSI	Classified National Security Information
CO	Contracting Officer
COR	Contracting Officer's Representative
CP	Conference Publication
CR	Contractor Report
CUI	Controlled Unclassified Information
EAR	Export Administration Regulations
FOIA	Freedom of Information Act
GO	Grant Officer
GPO	Government Publishing Office
GTO	Grants Technical Officer
ITAR	International Traffic in Arms Regulations
JPL	Jet Propulsion Laboratory
MDAA	Mission Directorate Associate Administrator
MSDAA	Mission Support Directorate Associate Administrator
NAII	NASA Advisory Implementing Instructions
NARA	National Archives and Records Administration
NF	NASA Form
NID	NASA Interim Directive
NPD	NASA Policy Directive
NPR	NASA Procedural Requirements
NTIS	National Technical Information Service
NTRS	NASA Technical Reports Server
OCIO	Office of the Chief Information Officer
OMB	Office of Management and Budget
PII	Personally Identifiable Information
PO	Program Office
SBIR	Small Business Innovation Research

SBU	Sensitive But Unclassified
STI	Scientific and Technical Information
STRIVES	Scientific and Technical Informaiton Discovery System
TM	Technical Memorandum
TP	Technical Publication
TT	Technical Translation

Appendix C. References

- C.1 Freedom of Information Act, 5 U.S.C. § 552.
- C.2 Aliens and Nationality - Definitions, 8 U.S.C. § 1101(a)(20).
- C.3 Aliens and Nationality – Unfair Immigration-Related Employment Practices, 8 U.S.C. § 1324b(a)(3).
- C.4 Subject Matter of Copyright: United States Government Works, 17 U.S.C. § 105.
- C.5 Privacy Act- NASA Regulations, 14 CFR § 1212.
- C.6 Export Administration Regulations (EAR), 15 CFR pts. 730-774.
- C.7 International Traffic in Arms Regulations (ITAR), 22 CFR pts. 120-130.
- C.8 Controlled Unclassified Information, 32 CFR pt. 2002.
- C.9 NPD 1050.7, Authority to Enter into Partnership Agreements.
- C.10 NPD 2230.1, Research Data and Publication Access.
- C.11 NPD 2521.1, Communications and Material Review.
- C.12 NPR 1382.1, NASA Privacy Procedural Requirements.
- C.13 NPR 1400.1, NASA Directives and Charters Procedural Requirements.
- C.14 NPR 2210.1, Release of NASA Software.
- C.15 NPR 7500.2, NASA Technology Transfer Requirements.
- C.16 NPR 8621.1, NASA Procedural Requirements for Mishap and Close Call Reporting, Investigating, and Recordkeeping.
- C.17 NASA STI Procedural Instructions (SharePoint knowledge base; internal to NASA).
- C.18 NASA Guidelines for Quality of Information (<https://www.nasa.gov/offices/ocio/qualityinfo/index.html>).