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NASA Procedural Requirements

NPR 2210.1C

Effective Date: August 11, 2010 Expiration Date: March 11, 2023

COMPLIANCE IS MANDATORY FOR NASA EMPLOYEES

Release of NASA Software - Revalidated w/change 1

Responsible Office: Space Technology Mission Directorate

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Chg#	Date	Description/Comments
1	08/05/2015	Admin changes to update with 1400 compliance and
		Information Technology Security Manager (CISO) to Chief
		Information Security Officer, name of the Chief
		Technologist and correct cross-references. Reorganized and
		consolidated text to make the language more concise and
		specific. Inserted mobile apps procedures and references
		throughout NPR. Inserted Office of Communications
		responsibilities. Removed Appendices C, D, E, and F.

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Preface

P.1. Purpose

This NASA Procedural Requirements (NPR) establishes procedures and responsibilities for the reporting, review, assessment, and release of software created by or for NASA. These procedures reinforce that NASA software is reported and released both internally and externally, according to law and NASA policies, with appropriate restrictions on the use and redistribution of the software. The unrestricted release of NASA software, as defined in Appendix A at paragraph A.2.7, is prohibited.

P.2. Applicability

- a. This NPR is applicable to NASA Headquarters and Centers, including Component Facilities, and to Jet Propulsion Laboratory (JPL), a Federally Funded Research and Development Center (FFRDC) to the extent specified in its contract.
- b. This NPR is applicable to the reporting, review, assessment, and release of all software:
- (1) Created exclusively by, or jointly with, NASA employees as part of the NASA employee's official duties;
- (2) Created by a non-Federal party where intellectual property rights to the software have been assigned to the U. S. Government, or have been licensed to the Government where the license authorizes the Government to further release the software; or,
- (3) In the lawful possession of NASA, except as otherwise stated in subparagraphs d through g.
- c. This NPR applies to software that (1) is or has been used in a NASA program, (2) was produced by or for NASA, or (3) may have significant commercial value or significant utility to potential private or public sector users or applications outside of NASA. Mobile applications (apps) are covered under this NPR.
- d. This NPR does not apply to software that has been classified pursuant to Executive Order 12958 by an Original Classification Authority and is designated and marked as Top Secret, Secret, or Confidential.
- e. This NPR does not apply to software released without restriction as to use or disclosure prior to October 17, 1997 (the original issue date of NPD 2210.1) unless such software has been modified to add new functionality since it was released.
- f. This NPR does not apply to bug fixes. Bug fixes alone may be released without complying with the requirements of this NPR. Previously released software that has been modified only by incorporating bug fixes may be released to the same recipient(s) without requiring additional reporting, reviews or agreements under this NPR. For applicability of this NPR to minor code enhancement of pre-existing software, see paragraph 1.8.4
- g. This NPR does not apply to computer databases, websites or software documentation, as defined at A.1.14, unless such documentation discloses software source code.

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(1) In accordance with applicable laws and regulations, Centers have discretionary authority to publicly release computer databases and software documentation depending on the Government's rights and obligations with regard to such data.

- (2) Upon request and depending on the Government's intellectual property rights and any other legal restrictions on release (e.g., export control), NASA computer programs that are used to read and manipulate computer databases may be publicly released with the computer databases, but only if such computer programs are not commercially available. For the release of software documentation, see Appendix A. In addition, certain types of information are restricted from dissemination via NASA public Web sites in accordance with NPR 2810.1, Security of Information Technology, section 11.3.9, Internet Publishing Content Requirements.
- h. In general, software is not considered a record under the Freedom of Information Act (FOIA) and, therefore, is not subject to the mandatory release requirements of the FOIA. Requests for software under the FOIA shall be coordinated between the Center FOIA Office and the Center Software Release Authority.
- i. 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" and "is" denotes descriptive material.
- j. In this directive, all document citations are assumed to be the latest version unless otherwise noted.

P.3. Authority

NPD 7120.4, NASA Engineering and Program/Project Management Policy, dated March 16, 2010.

P.4. Applicable Documents and Forms

- a. 44 U.S.C., Chapter 36, E-Government Act of 2002 (PL 107-347).
- b. NASA Supplement to the FAR (NFS), 48 CFR Subpart 1807.1, Acquisition Planning.
- c. NPD 1440.6, NASA Records Management.
- d. NPD 2090.6, Authority to Enter Into License Agreements and Implementation of Licensing Authority.
- e. NPD 2091.1, Inventions Made By Government Employees.
- f. NPD 2110.1, Foreign Access to NASA Technology Transfer Materials.
- g. NPD 2190.1, NASA Export Control Program.
- h. NPD 2810.1, NASA Information Security Policy.
- i. NPR 1441.1, NASA Records Retention Schedules.
- j. NPR 2800.2, Electronic and Information Technology Accessibility

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- k. NPR 2810.1, Security of Information Technology.
- 1. NPR 7120.4, NASA Engineering and Program/Project Management Policy
- m. NPR 7150.2, NASA Software Engineering Requirements.
- n. NPR 7500.2 NASA Technology Transfer Requirements.
- o. NASA-STD-8719.13, Software Safety Standard.
- p. NASA-STD-8739.8, Software Assurance Standard.

P.5. Measurement/Verification

The NASA Technology Transfer System (NTTS) shall be used to record and maintain metrics data on all software reported and released under this NPR. Performance measures will be implemented to assess the Agency's compliance with intellectual property rights associated with computer software distributed by the Agency in accordance with Executive Order 13103, Computer Software Piracy.

P.6. Cancellation

NPR 2210.1B, Release of NASA Software, dated August 11, 2010.

REVALIDATED WITH CHANGE 1, 8/05/15, ORIGINAL SIGNED BY:

/S/ Robert D. Braun, Ph.D. Chief Technologist NPR 2210.1C -- Chapter1 Page <u>7</u> of <u>31</u>

Chapter 1. Responsibilities

- 1.1 Office of the Chief Technologist (OCT)
- 1.1.1 The Chief Technologist is responsible for the overall management of the NASA software release policy established by NPD 7120.4 and shall establish and implement software release procedures, requirements, and supplemental policy with the General Counsel or designee.
- 1.1.2 The Chief Technologist shall encourage the broadest appropriate dissemination of NASA software.
- 1.1.3 The Chief Technologist shall charter a Software Release Authority Working Group (SRAWG) to oversee the software release process.
- 1.1.3.1 The SRAWG shall coordinate with the Software Working Group (SWG), chartered by the Office of the Chief Engineer and defined in NPD 7120.4, to ensure appropriate visibility of software issues within the Agency.
- 1.1.3.2 The Chairperson of the SRAWG shall be a member of the SWG.
- 1.1.3.3 The Center official designated by the Center Director, or his/her designee(s), is responsible for coordinating a technology commercialization assessment of software deemed within the scope and purpose of this NPR.
- 1.2 General Counsel
- 1.2.1 The General Counsel and the Agency Counsel for Intellectual Property (ACIP), or their designee(s), are responsible for providing and maintaining the NASA Model Software Usage Agreement(s) (SUA), the legal instrument(s) employed in releasing NASA software, as described herein.
- 1.2.2 Uniformity in SUA(s) across Centers shall be achieved to the maximum extent practicable.
- 1.2.2.1 When requested to modify a NASA model SUA, or create a new model SUA, the Center official designated by the Center Director, and the ACIP, or their designee(s), shall work jointly toward establishing mutually acceptable standardized language for SUA(s), as well as determining acceptability of requests for modifications to the model SUA(s).
- 1.2.3 The ACIP and the Center Patent or Intellectual Property (IP) Counsel (or Center Chief Counsel, at Centers without Patent or IP Counsel), or their designee(s), are responsible for providing appropriate legal counsel with respect to an Intellectual Property and Releasability Rights Assessment under Section 2.4 of this NPR on software prior to its approval for all releases unless exempted by the SRA as defined in 2.2.3.1. Where applicable, the Center Chief Counsel shall also be consulted.
- 1.2.4 The ACIP and the Center Patent or IP Counsel (or Center Chief Counsel, at Centers without Patent or IP Counsel), or their designee(s), in cooperation with the Center SRA, are responsible for preparing the SUA(s) and any other necessary legal instruments(s) employed in releasing NASA software and for consulting applicable contracting officers regarding release of software as Government Furnished Information (GFI) under Section 2.8.6.2.

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1.3 Center Export Administrator (CEA)

- 1.3.1 The CEA is responsible for coordinating an export control assessment on all software prior to its Approval for Public Release, Approval for Open Source Release, or Approval for U.S. and Foreign Release, (i.e., assisting with a determination whether the software, or some portion thereof, is subject to export restrictions under either the Export Administration Regulations or the International Traffic in Arms Regulations).
- 1.3.2 When a foreign release of software is contemplated (including a release to a foreign entity within the United States), the CEA shall be consulted to ensure that such release complies with applicable export laws and regulations, and the NASA Export Control Program. See also NPD 2190.1A and NPR 2190.1, both entitled NASA Export Control Program.

1.4 Center Directors

- 1.4.1 The Center Director, or designee, is responsible for appointing an individual(s) to carry out responsibilities specified in this NPR.
- 1.4.2 The Center Director, or designee, is responsible for appointing an individual as the Center Software Release Authority (SRA) or for appointing a group of individuals as the Software Release Group. A Software Release Group shall have a team leader or chairperson designated as the Center SRA.
- 1.5 NASA Inspector General
- 1.5.1 The NASA Inspector General, or designee, is responsible for appointing an individual or group of individuals as SRA for the purpose of determining the release of forensic software developed by the Office of Inspector General for law enforcement purposes. The SRA appointed for this purpose shall comply with the requirements of this NPR.
- 1.6 Center Information Security Officer (CISO)
- 1.6.1 The CISO is responsible for identifying to the Center SRA security risks inherent in the release of specific software and for determining how to eliminate or manage those risks as needed. The Center CISO shall develop guidance on when an IT security assessment may be needed, including a standard checklist to assist the Center SRA in the identifying IT security risks associated with the release of software that will require an IT security assessment. The CISO will be consulted, as warranted by the guidance, by the Center SRA and the responsible software development and assurance organizations prior to the release of the software.

1.7 Office of Communications

The Center Chief of the Office of Communications, or his designee, is responsible for reviewing Public, or External, mobile applications for appropriate content and NASA branding prior to a final release determination by the SRA.

- 1.8 Software Release Authority
- 1.8.1 The Center SRA is responsible for ensuring that all releases of applicable software are accomplished in accordance with this NPR.
- 1.8.2 The Center SRA is responsible for managing the software release process implemented by this NPR in coordination with the Center Patent or IP Counsel, the Center official designated by the

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Center Director responsible for Commerical Assessment, the CEA, the Center CISO, the Center Procurement Office, the Center Office or Project responsible for the software, and other Center offices as necessary.

- 1.8.3 The Center SRA may establish supplemental procedures and guidance to support the implementation and administration of the software release process and to determine the applicability of this NPR to software developed by the Center (e.g., determining the applicability of this NPR to software that may be outside the purpose and scope of this NPR).
- 1.8.4 Minor enhancements to pre-existing software that do not materially alter the operation of the pre-existing software may not be subject to the requirements of this NPR. When requested, the Center SRA shall review minor enhancements and consult with the Center Patent or IP Counsel to determine the applicability of this NPR to the minor enhancement. Where the Center SRA determines that this NPR does not apply to a particular minor enhancement, the minor enhancement alone may be released without complying with the requirements of this NPR.
- 1.8.5 As determined by the Center SRA, previously released software that has been modified only by incorporating a minor enhancementdeemed by the SRA as iytsude tge scope of the NPR may be released to the same recipient(s) without requiring additional reporting, reviews, or SUAs under this NPR.
- 1.8.6 The Center SRA shall:
- a. Be the Center representative on the SRAWG;
- b. Retain the original or electronic copy of the signed SUA or other Software Release Record, respectively, for each software released in accordance with this NPR and NPR 1441.1; and
- c. Document each individual release of software in the Software Release section of the NASA Technology Transfer System (NTTS). If an electronic copy of the original signed SUA or release record is maintained by the Center SRA, the original paper copy may be discarded. A backup copy may also be attached electronically to the appropriate NTTS record.
- d. Record all SUAs in the NTTS within 10 days of the end of the fiscal year quarter.
- 1.9 Responsible Center Offices or Projects
- 1.9.1 The Center Office or Project that has responsibility for a particular software is responsible for recommending a desired release category under section A.2 and shall notify the Center SRA of the following:
- a. Any programmatic restrictions on release of the software;
- b. The software's classification (i.e, Class A H) as defined in NPR 7150.2, NASA Software Engineering Requirements;
- c. Whether the software complies with the software engineering and assurance requirements of NPR 7150.2 and NASA-STD-8739.8, Software Assurance Standard, for the applicable software classification;
- d. Whether the software is safety-critical software as defined in NASA-STD-8739.8, and if so, whether it complies with the software safety requirements of NASA-STD-8719.13, Software Safety Standard;

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e. The software's Technology Readiness Level (TRL) as defined in NPR 7120.8, NASA Research and Technology Program and Project Management Requirements;

- f. Any software documentation, as defined in Appendix A, that is proposed (or available) for release with the software;
- g. Whether any known export restrictions apply to the software;
- h. Whether the software includes any Open Source or other third party software;
- i. Whether Open Source Release of the software is proposed; and
- j. Whether the software includes any embedded computer databases.
- 1.9.2 Before the release of any software, the Office or Project that has responsibility for the software, with the assistance of the SRA, shall coordinate with the NASA Center 508 Coordinator, for the purposes of obtaining a decision from the Coordinator regarding the software's Section 508 compliance, including any appropriate exceptions in accordance with NPR 2800.2, Policy on Electronic Information Technology Accessibility.
- 1.9.3 Open Source Software Development, as defined in paragraph A.1.8, may be used as part of a NASA project only if the Office or Project that has responsibility for acquisition or development of the software supports incorporation of external Open Source Software into software. In addition, the Office or Project responsible for the software acquisition or development shall:
- a. Determine the ramifications of incorporating such external Open Source Software during the acquisition planning process specified in NASA FAR Supplement Subpart 1807.1, Acquisition Plans; and
- b. Consult with the Center Patent or IP Counsel early in the planning process (see 2.4.2.1) as the license under which the Open Source software was acquired may negatively impact NASA's intended use.

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Chapter 2. Reporting, Review, and Assessment of Software

- 2.1 Center Awareness and Orientation Activities
- 2.1.1 The Center SRA shall conduct awareness activities and orientation sessions for Center civil servants and contractors to support the implementation of this NPR.
- 2.2 Software Reporting
- 2.2.1 Software subject to this NPR, as described in paragraph P.2 and as determined by the Center SRA under paragraph 1.7, shall be reported to NASA.
- 2.2.1.1 The Center SRA shall ensure that software is reported in accordance with this section 2.2 and is inventoried in the NTTS.
- 2.2.2 This reporting requirement applies to new software subject to this NPR that has not yet been reported and to software previously reported where new functionality or new innovators have been added to the software since it was reported.
- 2.2.2.1 The reporting requirement does not apply to bug fixes or minor enhancements that the Center SRA has determined are not subject to this NPR. If there are questions on reporting software, contact the Center SRA for assistance in contacting the appropriate personnel responsible for assisting in the reporting of new technologies.
- 2.2.3 Except for an Approved for NASA Release (as defined in 2.2.3.1), software will be reported prior to any release.
- 2.2.3.1 To minimize delays during software development or review among NASA Centers, if approved by the Center SRA, software released as an Approved for NASA Release may be reported after the release.
- 2.2.4 In accordance with NPD 2091.1, Inventions Made By Government Employees, each NASA employee who makes an invention embodied by software will report such invention to the personnel responsible for assisting in the reporting of inventions.
- 2.2.5 In accordance with the Patent Rights or New Technology clauses in NASA contracts and subcontracts, contractors and subcontractors shall report subject inventions and reportable items that include software created by their employees to the NASA New Technology Representative named in their contracts.
- 2.2.5.1 The NASA New Technology Representative shall provide the Center Patent or IP Counsel with access to contractor New Technology Reports (NTR) disclosing software.
- 2.2.6 Generally, NASA does not use grants to develop software; however, where a grantee has developed software as a consequence of performing activities under a grant, the grant obligates the grantee to report the software if it is considered to be a potentially patentable subject matter.
- 2.2.7 Software is normally reported electronically using the NASA electronic New Technology Reporting system (e-NTR) located at http://invention.nasa.gov (preferred method) or in hard copy

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using NASA Form (NF) 1679 "Disclosure of Invention and New Technology (Including Software)," also available at the e-NTR web site.

2.2.7.1 All software disclosures will:

- a. Identify the individuals contributing to the concept expressed by the software (i.e., the underlying functional method or process that is implemented by the software) as well as those individuals involved in coding the actual software;
- b. Indicate where the software is an improvement or innovation and provide version number;
- c. Identify any proprietary software, software owned by a non-Federal entity, or open source software that is incorporated into the software being disclosed; and,
- d. Indicate whether a license has been obtained in situations where proprietary software, software owned by a non-Federal entity, or open source software has been incorporated into the software being disclosed and attach a copy of the license to the disclosure.
- 2.3 Review and Assessment Coordination
- 2.3.1 The Center SRA shall coordinate the review and assessment of reported software by the Center Patent or IP Counsel as described in Section 2.4, the Center official designated by the Center Director, or his/her designee(s), as described in Section 2.5, the CEA as described in Section 2.6, and the Center CISO as described in Section 2.7.
- 2.3.2 The Center SRA may use the Software Release Request authorization (SRRA) checklist and Compliance Matrices for Software Classification to gather information from software developers that is needed to software release assessments. Both of these completed documents may be attached to the appropriate record in NTTS for historical reference purposes.
- 2.4 Intellectual Property and Releasability Rights Assessment
- 2.4.1 The Center Patent or IP Counsel shall provide appropriate legal counsel with respect to an Intellectual Property and Releasability Rights Assessment of all reported software defined in paragraphs 2.4.4.1 to 2.4.4.5 to determine NASA's rights in the software, to determine the suitability of software for patent and/or copyright protection, and to identify any appropriate transfer restrictions.
- 2.4.2 The Center Patent or IP Counsel shall provide appropriate legal counsel with respect to the Government's rights in software for the purposes of assessing NASA's right to release the software. Determination of the Government's rights is required before the software may be released.
- 2.4.2.1 In order to release the software, the Government must have clear rights in the software, such as an ownership interest, a Government purpose license, or other appropriate license or permission from third party owners. If the reported software does not include any proprietary software or software owned by a Non-Federal entity, or the Government has a license/permission to use any such software included in the reported software (e.g. Government Purpose or Open Source license), the software may, at its most restrictive, be accepted as Approved by U.S. Government Purpose Release. Centers, however, should still explore whether a broader release category is permitted.
- 2.4.2.2 Where it is known that Open Source Software, as defined in A.1.7, is included in software proposed for release, the Center Patent or IP Counsel shall prior to any release:

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a. Review the external Open Source Software license and assess any special risks that may be involved; and

- b. Confirm that NASA has obtained clear rights from any third party rights owners (such as through an assignment or license) to make the Open Source Release.
- 2.4.2.3 When it is known that Open Source Software Development, may be used as part of a NASA project, the Office or Project that has responsibility for acquisition or development of the software (see 1.8.3) to assess any risks that may negatively impact NASA's intended use.
- 2.4.3 The Center Patent or IP Counsel shall provide appropriate legal counsel for determining the suitability of reported software for patent and/or copyright protection.
- 2.4.3.1 The Center Patent or IP Counsel shall provide appropriate legal counsel in the determination of authors and inventors of software and whether (1) the software qualifies as patentable subject matter, and (2) is a work of the U.S. Government as defined in paragraph 2.4.3.3. The software invention, e.g., the underlying functional concepts and/or ideas implemented by the software, may be protected through patenting, whereas the actual software code, which expresses those concepts, may also be protected through copyright.
- 2.4.3.2 Patents. NASA can obtain domestic and/or foreign patents on the ideas, algorithms, and processes underlying the software if they satisfy the requirements for patentable subject matter. Normally, all parties with an ownership interest must assign their interest in the software to the Government before NASA will file a patent application. Consistent with guidelines set forth in NPR 7500.2, patents will only be sought when a clear determination has been made that patent protection would be a more effective method of ensuring broad distribution and adoption of the technology than the conventional Software Release Process.
- 2.4.3.3 Copyrights. Software created solely by an officer or employee of the U. S. Government as part of that person's official duties is a work of the U. S. Government. Copyright protection is not currently available in the United States for a work of the U. S. Government. However, the Government can claim foreign copyrights for software created by its employees and can receive and hold U.S. and foreign copyrights transferred to it by assignment.
- 2.4.3.4 NASA can direct its contractors to assert their worldwide (U.S. and foreign) copyright and assign it to the U.S. Government when software is created under a NASA contract. If the contractor provides an acceptable plan to commercialize the software, the Contracting Officer, in consultation with the Center Patent or IP Counsel and the Center Office or Project that has responsibility for the software, may provide the contractor written permission to assert copyright in the software code. Where such permission is provided, the contractor retains the copyright with the Government retaining a license for use by and for the Government. This Government purpose license does not, however, include the right to distribute the software to the public. Such software may be distributed for Government purposes as defined in paragraph 2.4.4.3 and A.2.6, unless a broader license has been obtained by the Government.
- 2.4.4 Center Patent or IP Counsel shall provide appropriate legal counsel with respect to evaluating and classifying reported software under one or more of the categories listed in the following subparagraphs. As circumstances change, the software may be reevaluated and reclassified.
- 2.4.4.1 Releasable Without Nondisclosure Obligations. Software that has been categorized as Approved for Public Release and becomes Publicly Releasable Software is releasable without

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nondisclosure obligations in the SUA. Software that has not been categorized as Approved for Public Release but (a) is a work of the U.S. Government as defined in paragraph 2.4.3.3, (b) is not export restricted, (c) is not and is not expected to be the subject of a patent application, and (d) for which there is no plan for further development or beta testing, may be released without nondisclosure obligations in the SUA. This type of release will be used with caution to avoid creating a statutory bar to patenting.

- 2.4.4.2 Releasable With Nondisclosure Obligations. In general, software, as valuable property, is not an Agency record under the FOIA, and, therefore, is not subject to the mandatory disclosure provisions of the FOIA. Thus, with limited exceptions, software may be categorized as releasable with nondisclosure obligations. The limited exceptions include software that (a) contains an embedded computer database that is itself releasable under the FOIA, (b) is so related to a releasable computer database that the computer database would be unintelligible or unusable without the software, and (c) preserves information relative to the Agency's structure, operation, or decision-making process.
- a. To avoid creating a statutory bar for patenting, software that is being reviewed by the Center Patent or IP Counsel for patentable subject matter and the filing of a patent application shall be categorized as releasable with nondisclosure obligations.
- b. Additionally, software that is part of an application for patent filed in the U. S. Patent and Trademark Office, or with any foreign patent office, will be categorized as releasable with nondisclosure obligations.
- c. Software categorized as Releasable with Nondisclosure Obligations will include nondisclosure provisions in the SUA when released.
- 2.4.4.3 Releasable Only for U.S. Government Purposes. Software that has U.S. Government purpose only restrictions on use, copying, distribution, etc., should be categorized as Releasable Only for U.S. Government Purposes.
- a. Software so categorized should be used only for U.S. Government purposes. A U.S. Government purpose is any activity in which the U.S. Government is a party, including contracts, grants, cooperative agreements, and non-reimbursable Space Act Agreements. Center Patent or IP attorney may be consulted for any questions that arise as to whether an activity is a government purpose.
- b. Government purposes include a release for use in competitive procurements for the Government, but do not include a release for commercial purposes or a release to the public. Thus, the Government may release or disclose such software outside the Government and authorize persons to whom release or disclosure has been made to use, modify, reproduce, release, perform, display, or disclose the software for Government purposes only.
- c. Center Patent or IP Counsel shall determine whether nondisclosure provisions should be included in an SUA for release of software categorized as Releasable Only for U.S. Government Purpose.
- 2.4.4.4 Not Releasable. This category includes software in which the associated copyright is owned by a non-Federal party. Software in the lawful possession of NASA that was obtained under a contract, license, or other agreement that prohibits any further use, duplication, or disclosure, will be categorized as Not Releasable; and, unless subsequent permission is granted by its owner, such software should not be released. Even with such permission, an export control assessment in accordance with paragraph 2.6 is required if the proposed release is to a foreign person.

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2.4.4.5 Licensable Software. Software categorized as Licensable Software, will be consistent with technology transfer objectives and should be coordinated with the Center Patent or IP Counsel and the Center official designated by the Center Director, or his/her designee(s).

- a. The licensing of software is governed by Government-wide licensing regulations (37 CFR Part 404) and NPR 2090.6, Authority to Enter Into License Agreements and Implementation of Licensing Authority.
- b. While the licensing of software under NPR 2090.6 is not considered a release under this NPR, however, before Licensable Software is approved for licensing, it normally goes through the same review and assessment process as described in this Chapter.
- 2.5 Technology Transfer Assessment
- 2.5.1 The Center official designated by the Center Director, or his/her designee(s), shall coordinate an assessment of any reported software's TRL and technology transfer potential.
- 2.5.1.1 The assessment should consider the software's value or utility to potential private or public sector users and applications outside of NASA. Software Technology Readiness Levels are provided in Appendix E. Section 4.6 of NPR 7500.1, NASA Technology Commercialization Process, provides guidance on providing assessments of technical transfer potential.
- 2.5.2 External individuals or organizations and NASA contractors, grantees, and Space Act Agreement partners, with whom NASA has nondisclosure arrangements to protect against the unintended public release of NASA-funded software, may provide research and analysis in support of the Technology Transfer Assessment.
- 2.5.3 The assessment shall include strategies and recommendations for the transfer of the software which will maximize its benefit to NASA, the U.S. public, and the U.S. economy.
- 2.5.4 Upon approval by the Center SRA, a Project Release for use under a NASA contract or grant may be made prior to a Technology Transfer Assessment (see also 3.2.5.3.c).
- 2.6 Export Control Assessment
- 2.6.1 The decision to support a foreign release of software (i.e., a release made directly to, or made accessible to, any individual outside of the United States or a foreign person in the United State) should be made by the Center SRA in consultation with the Center Office or Project that has responsibility for the software and the CEA.
- 2.6.2 A foreign release of software may be made only if the CEA approves the release. Prior to approval of a foreign release, the CEA shall conduct an Export Control Assessment of software to determine export control requirements and will provide guidance and oversight to ensure that any intended foreign release of software complies with applicable export control laws and regulations as well as the NASA Export Control Program.
- 2.6.2.1 The CEA shall ensure that any intended foreign release of NASA software complies with:
- a. The U.S. State Department's International Traffic in Arms Regulations for software falling within the scope of the United States Munitions List, or
- b. The U.S. Department of Commerce's Export Administration Regulations for software falling within the scope of the Commerce Control List.

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2.6.2.2. While an export control assessment is only required for a release that legally constitutes an export, it may be requested and used for decision making by the Center SRA in determining appropriate categorization and availability for release in other situations.

- 2.6.3 All requests for the release of command and control (C&C) software for flight operations will have the endorsement of the NASA Center or Program officials with management responsibility for development, acquisition, and implementation of the requested C&C software.
- 2.6.3.1 All requests for the release of C&C software are subject to the Export Control Assessment established by this NPR.
- 2.6.3.2 During the Export Control Assessment of C&C software considered for release, the CEA, as warranted, should consult with the Center Inspector General's Office.
- 2.6.4 Applicability The export control laws cover the release of technical data, including software, outside the United States and the release of technical data, including software, to a foreign person in the United States, to a U.S. person representing a foreign person, or to persons on U.S. sanctioned-parties or denied-parties lists (see NPR 2190.1).
- 2.6.4.1 A release of software to a foreign person located in the United States or abroad or broad access by the public (e.g., on the Internet) are both considered to be an export.
- 2.6.4.2 A Public Release or an Open Source Release, as described in paragraph A.2.3, is always considered an export due to its availability to any foreign person, and thus requires CEA approval.
- 2.6.4.3 A U.S. and Foreign Release may be an export, depending on the recipient.
- 2.6.4.4 A release of export-controlled software will include the appropriate export determination and be limited to U.S. persons as defined in title 22 CFR 120.15 and parties not appearing on any U.S. sanctioned-parties or denied-parties lists unless approval to export the software has first been obtained by the CEA.
- a. Additionally, any software that is being exported will prominently display appropriate Export Administration Regulations (EAR) and International Traffic in Arms Regulations (ITAR) legends, if the software has been determined to be export controlled by the CEA.
- 2.6.5 Unauthorized Foreign Release An employee who releases export-controlled software without authorization risks violating the EAR or the ITAR, which may result in criminal, civil, or administrative action against both the Agency and the employee.
- 2.7 Information Technology Security Assessment
- 2.7.1 The Center CISO shall advise and assist the Center SRA and the responsible software development and assurance organizations in the identification and the mitigation or elimination of information technology security risks associated with the release of software considered within the scope and purpose of this NPR. A key objective of Center CISO advice and assistance is to ensure the integrity of NASA information technology systems and to prevent unauthorized access to NASA computing resources.
- 2.7.2 CISO guidance may include a standard checklist or specific criteria for use by the Center SRA and/or the responsible software development and assurance organizations in performing an IT security assessment of all software considered for release.

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2.7.3 If the checklist requires interpretation in its application, the Center SRA or the responsible software development and assurance organizations will consult with their Center CISO to provide clarification.

- 2.7.3.1 Software that is modified to mitigate or eliminate identified IT Security risks prior to its release should be reassessed upon the documented completion of risk reduction measures.
- 2.7.4 The results of the IT security assessment of the software considered for release shall be documented by the software development organization project manager, in accordance with NPD 7120.4, and provided to the Center SRA for use in determining the release of software in accordance with the ITSM guidance.
- 2.7.4.1 A copy of the assessment results will be provided to the Center CISO. The Center SRA and the Center CISO, as deemed warranted by either party, should jointly consider a given IT security assessment prior to the release of the subject software.

2.8 SRA Release Determination

- 2.8.1 The Center SRA shall ensure that the release of applicable software created by and for the Center is accomplished in accordance with this NPR and in a timely manner.
- 2.8.2 Upon consulting with the Software Innovator, the Center SRA has the authority to categorize software as Software Code Baseline, Software Product Baseline, Software Accepted (As Built) Baseline, or Publicly Releasable Software.
- 2.8.3 When a release of NASA software is requested, the Center SRA shall consult with the Center Office or Project that has responsibility for the software to determine a recommended release category.
- 2.8.4 In establishing release restrictions for specified software, the Center SRA shall consider Agency technology transfer objectives along with the recommendations and determinations resulting from the release assessments.
- 2.8.4.1 The Center SRA shall then identify, consistent with the established release restrictions, the approved option(s) for releasing specified software as implemented.
- 2.8.5 Finally, the Center SRA will consult with the Center Patent or IP Attorney to determine the proper SUA for a release of NASA software. Model SUAs have been prepared and adopted for use by the SRA's. Model SUAs may be revised for a particular release only after consultation with the Center Patent or IP Counsel or designee.
- 2.8.6 Except in the case of an Open Source Release (see 3.2.2.2.), a SUA will be signed, or otherwise agreed to, or acknowledged by the recipient before the requested software may be released to the recipient.
- 2.8.6.1 In the case of a software where NASA is seeking to expedite broad dissemination such as with a Public Release or an Open Source Release, a recipient's agreement may be, for example, by click-wrap agreement or terms of use under the agreement.
- 2.8.6.2 In the case of a Project Release under a Government contract, software may be released by NASA to NASA's support service contractors as Government Furnished Information (GFI) under the contract, and the contract or other Contracting Officer direction may serve as the SUA if the Center Patent or IP Counsel concurs. If software is to be released as GFI, the SRA shall work with the

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applicable Contracting Officer and obtain sufficient information to document the release.

- 2.8.6.3 A SUA issued for any purpose other than an Open Source Release will, at a minimum, include a Software Release Record described in 3.6.1, the disclaimer and indemnification provisions as required in 3.4 and the notices of 3.5 as required in this NPR and may also include provisions for nondisclosure and export control as required.
- 2.8.6.4 A SUA will also specify any restrictions on use and disclosure of said software imposed by NASA on the recipient.
- 2.8.6.5 For all releases other than an Intra-NASA Release, Open Source Release or Public Release via click wrap agreement, a SUA will be issued by the Center SRA (or Contracting Officer if released under 2.8.6.2), or designee, and an original SUA or Software Release Record shall be retained by the SRA, or designee.
- 2.8.7 An SUA is a Government record and will be maintained in NTTS for disposition per guidance provided in NPD 1440.6, NASA Records Management, and NPR 1441.1, NASA Records Retention Schedules.

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Chapter 3. Release Options and Restrictions

3.1 General Considerations

- 3.1.1 The release categories constitute a hierarchy from least to most restrictive. Once a particular release category has been approved, software may be released under that category or under any of the more restrictive release categories defined in section 3.2.
- 3.1.2 Generally, after consultation with the Center Patent or IP Counsel, software shall be categorized as Releasable Without Nondisclosure Obligations, Releasable With Nondisclosure Obligations, Releasable Only for U.S. Government Purposes, or Not Releasable as described in paragraph 2.4.4.
- 3.1.3 The Center SRA is authorized to release software with more restrictive conditions than recommended by Center Patent or IP Counsel and the CEA, provided that the SRA works with the Center Patent or IP Counsel to prepare the appropriate SUA. However, in no event will the Center SRA release software with less restrictive conditions than recommended by Center Patent or IP Counsel in paragraphs 2.4.4.1 through 2.4.4.4, by the CEA in section 2.6, or by the Center CISO in section 2.7.
- 3.1.4 In keeping with the NASA Technology Transfer perspective in NPR 7500.2, NASA Technology Transfer Requirements" which encourages and enables the widest possible utilization of NASA technological assets by public and private sectors of the United States to benefit the national economy and the U.S. Public, US General Release is the default release type for NASA developed software unless otherwise restricted by the requirements of this NPR.
- 3.1.5 Given that NASA is on the forefront of development and enhancement of systems to support human capital programs and processes and that NASA proactively shares such systems with the Federal community in support of the e-Government Act of 2002 (PL 107-347, Chapter 36 of Title 44 U.S.C.) and the Office of Management and Budget Human Resources Line of Business Initiative of 2008, NASA human capital software applications will generally be assigned release restrictions of Approved for Public Release, Approved for Open Source Release, or Approved for U.S. Government Purpose Release.
- 3.1.6 The release categories defined in 3.2 are not intended to be the exclusive methods of releasing software. Generally, software will either be releasable without a nondisclosure agreement, releasable with a nondisclosure agreement, or not releasable as determined by the Center Patent or IP Counsel.
- 3.2 Release Categories
- 3.2.1 Approved for Public Release
- 3.2.1.1 The release category is the broadest release category possible and may be approved only if Software Accepted (As-Built) Baseline has been categorized as Publicly Releasable Software.

Specific Release Requirements. In addition to the requirements associated with the categories identified in paragraphs 2.4.4.1 -- 2.4.4.2, the following specific requirements and restrictions for release of software apply to the release options defined in paragraph A.2.

3.2.1.2 This release category indicates there are no export, nondisclosure, or other restrictions on the

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software and requires concurrence by the CEA and Center Patent or IP Counsel.

3.2.1.3 Once software has been approved for Public Release, all other release types may be allowed as appropriate.

- 3.2.1.4 Software Approved for Public Release does not require a Technology Transfer Control Plan per section 3.5 of NPR 2190.1. Additionally, it is recognized that foreign entities may have access to Software Approved for Public Release. This is consistent with and is not prohibited by NPD 2110.1, Foreign Access to NASA Technology Transfer Materials (since further software development by the foreign recipient may be applied to NASA missions).
- 3.2.1.5 Under this release category, further transfer of the software by the recipient without the prior written approval of NASA may be authorized.
- 3.2.1.6 All releases under this category, other than via a click-wrap agreement, require an SUA be issued in accordance with paragraph A.1.18.
- 3.2.1.7 NASA protects and controls the use of its name, seal, insignia, and initials (see 14 CFR Part 1221). Therefore, NASA software that is categorized as Approved for Public Release shall not include the name or initials of "NASA" in the software name or acronym.
- 3.2.1.8 Public, or External mobile applications for distribution to the general public will have an Approved for Public Release determination.
- 3.2.2 Approved for Open Source Release
- 3.2.2.1 Open Source Software, a subcategory of Publicly Releaseable Software, developed by or for NASA shall be released under the NASA Open Source Agreement (NOSA) unless external Open Source Software incorporated into the NASA Open Source Software requires use of a different open source license or unless approved by Center Patent or IP Counsel.
- a. Open Source Software will not be released using a different open source license, unless Center Patent or IP Counsel reviews the license to assess risks associated with its use and approves its use.
- b. If a proposed release of Open Source Software includes the release of external Open Source Software, care will be taken to ensure that the pertinent license for such external Open Source Software is acceptable. For example, at least one widely used external open source license does not currently include an indemnification provision and further requires that all software distributed with that external Open Source Software be distributed under the same license terms.
- 3.2.2.2 When software categorized as Approved for Open Source Release is released as Open Source Software, the software recipient is provided with a copy of, or access to, the NOSA or other open source license and the recipient's acceptance of the NOSA or other open source license is effective upon download or use of the software. Thus, a signed SUA (e.g., a signed copy of the NOSA) is not required for this type of release.
- 3.2.2.3 NASA protects and controls the use of its name, seal, insignia, and initials (see 14 CFR Part 1221). Therefore, NASA software that is categorized as Approved for Open Source Release shall not include the name or initials of "NASA" in the software name or acronym.
- 3.2.3 Approved for U.S. and Foreign Release
- 3.2.3.1 Approved for U.S. and Foreign Release is essentially a U.S. Release where release can also

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be made to foreign persons.

3.2.3.2 Due to Agency policy reflected in NPD 2110.1, this category will be approved only for "Software Accepted (As-Built) Baseline" that may have special considerations, such as public health and safety benefits, or where special circumstances accrue economic benefit to the U.S.

- 3.2.3.3 Normally, further transfer of the software by the recipient without the prior written approval of NASA is not allowed under this release category.
- 3.2.3.4 This release category will be approved with great care and requires concurrence by the CEA.
- 3.2.3.5 All releases under this category require an SUA.
- 3.2.3.6 Nondisclosure and export control provisions will be included as directed by the Center Patent or IP Counsel and CEA, respectively.
- 3.2.4 Approved for U.S. Release Only
- 3.2.4.1 Normally, further transfer of software by the recipient without the prior written approval of NASA is not allowed under this release category.
- 3.2.4.2 All releases under this category require an SUA.
- 3.2.4.3 Nondisclosure and export control provisions will be included as directed by the Center Patent or IP Counsel and CEA, respectively. This release category does not remove Export Control Program restrictions.
- 3.2.4.4 Release may be made by the Center directly or by the Center via a designated NASA agent for software transfer and distribution (i.e., NASA contractor, grantee, or Space Act Agreement partner). A U.S. Release via a designated agent shall be subject to this NPR. Restrictions on the use and distribution of software via a designated agent may be established by NASA.
- 3.2.5 Approved for U.S. Government Purpose Release.
- 3.2.5.1 Except for (1) a civil servant-to-civil servant exchange of software within NASA or (2) software released as Government Furnished Information (GFI) or Government Furnished Software (GFS) under a NASA contract or grant, an SUA is required for all subcategories under the Approved for U.S. Government Purpose Release.
- a. Once a release of a particular software to a NASA project other than the project that has responsibility for that software has been approved and released via an SUA, that software may be further released civil servant-to-civil servant within that project without further review.
- b. Nondisclosure and export control provisions will be included in SUAs as directed by the Center Patent or IP Counsel and CEA, respectively.
- c. Permission to redistribute NASA software to contractors and/or subcontractors for use under a Government contract may be included in the SUA.
- 3.2.5.2 Approved for Beta Release. A Beta Release is only appropriate for the purpose of obtaining test and evaluation comments and feedback on the operation of a computer program from beta release recipients.
- a. A Beta Release to a foreign organization, will be authorized by the SRA only after consultation

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with and concurrence by the CEA.

3.2.5.3 Approved for Project Release. The Center SRA shall authorize a Project Release only through written contract, SUA, or other agreement deemed to be a Government purpose.

- a. A Project Release is appropriate in the following situations:
- (1) For use under U.S. Government contracts or grants;
- (2) In the United States for use under a Space Act agreement, cooperative project, exchange program, or other agreement between the U.S. Government and another organization;
- (3) For use by a foreign organization if determined by NASA to be required to implement an international cooperative project established by NASA in an international agreement with the foreign cooperating or sponsoring agency.
- b. Nondisclosure and export control provisions should be included as directed by the Center Patent or IP Counsel and CEA, respectively. At a minimum, NASA will obtain Government purpose license rights to any software enhancements or derivative works made by the software recipient. Approved for Project Release includes the following categories of release:
- c. Project Release for use under NASA contracts or grants. The release will specifically limit the use of the software to the contractor and specifically identified subcontractors. Upon approval by the Center SRA, the release may be implemented by the responsible technical project monitor and may be made before the Technology Transfer Assessment is completed.
- (1) If released as GFI under a contract or grant, use of the software will be limited to accomplishing work under that contract or grant.
- (2) If released under a separate SUA, use of the software will be limited to accomplishing work under the contract(s) or grant(s) listed in the SUA.
- d. Project Release in the United States for use under a Space Act Agreement, cooperative project, exchange program, or other agreement between NASA and another organization. The release will be specifically limited to the use of the software by the stated recipient, solely to accomplish the work described in the agreement, or if further distribution is approved, delineated in any NASA-approved distribution of the released software.
- e. Project Release for use by a foreign organization to implement an international cooperative project established by NASA in a project agreement with the foreign cooperating or sponsoring agency. The release will be specifically limited to use of the software by the stated recipient and should prohibit any further distribution.
- (1) Any such release will be in accordance with the international agreement and the NASA Export Control Program.
- 3.2.5.4 Approved for Developmental Release. This category is generally a type of Project Release for use under a NASA contract where Software Product Baseline is released specifically for further development on behalf of the Government, but not including operational use.
- 3.2.5.5 Approved for Interagency Release. This type of release is for use by another U.S. Government agency and will include any use restriction (e.g., for governmental purposes only or for

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internal Government use only) associated with the software. If the receiving Agency is authorized to further release the software, provisions to flow down disclaimer and indemnification provisions to the further recipients are required.

3.2.5.6 Approved for NASA Release. The transfer of software between NASA Centers is critical to Agency programs which often involve multiple Center organizations. Unless other restrictions apply, intra-NASA releases are to be encouraged and facilitated by the Center SRA's. This type of release is between NASA Centers. The SUA for this type of a release is a simple acknowledgement of receipt of the software that identifies any restriction on NASA's right to use the software. The acknowledgement, which may be done via click-wrap acceptance, will include any use restriction (e.g., for governmental purposes only or for NASA internal use only) associated with the software but does not require disclaimer or indemnification provisions.

If the receiving Center plans on releasing it to a Center contractor, the receiving Center shall use a Project Release under paragraph 3.2.5.3.c.

- 3.2.6 The Center SRA shall not authorize an Unrestricted Release (as defined in paragraph A.2.7).
- 3.3 Patent and Copyright Licensing

Patent and copyright licensing to external entities is not considered a release under this NPR. Patent and copyright licensing is implemented under NPD 2090.6. However, in general, before software is approved for licensing, it normally goes through the same review and assessment process as described in Chapter 2 herein.

- 3.4 Disclaimer and Indemnification
- 3.4.1 All software released by NASA, except for an Approved for NASA Release, will contain appropriate disclaimer and indemnification provisions stating that the software is provided "as is" without any warranty, expressed or implied and that the recipient waives any claims against, and indemnifies and holds harmless, the Government and its contractors and subcontractors.
- 3.4.1.1 The disclaimer and indemnification provisions should be included in the SUA and, where practicable, will be displayed on software startup and/or, for software delivered in tangible form, be attached as a label to the software medium released.
- 3.4.1.2 Use of any exceptions to the disclaimer and indemnification clauses will be approved by the Center Office of Chief Counsel or Center Patent or IP Counsel as appropriate. With the approval of counsel, reference to indemnification may be removed when: (1) a Recipient is a state government entity (e.g., a state college/university) or U.S. Government entity prohibited by state or Federallaw from agreeing to indemnify; (2) NASA software is distributed with, or as part of, external Open Source Software obtained by NASA under a license that does not include indemnification provisions and that requires all software distributed with that external Open Source Software to be distributed under the same license terms; or (3) in the case of a Project Release under a Government contract, the software is provided as Government Furnished Information (GFI) under the contract or as otherwise approved by Center Office of Chief Counsel or Center Patent or IP Counsel.
- 3.4.1.3 Sample disclaimer and indemnification provisions are provided as follows:
- a. The NASA software and/or technical data are provided "AS IS" without any warranty of any kind, either expressed, implied, or statutory, including, but not limited to, any warranty that the NASA software and/or technical data will conform to specifications, any implied warranties of

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merchantability, fitness for a particular purpose, or freedom from infringement, any warranty that the NASA software and/or technical data will be error free, or any warranty that technical data, if provided, will conform to the NASA software. In no event will the United States Government, or its contractors or subcontractors, be liable for any damages, including, but not limited to, direct, indirect, special, or consequential damages, arising out of, resulting from, or in any way connected with the NASA software and/or technical data, whether or not based upon warranty, contract, tort, or otherwise; whether or not injury was sustained by persons or property or otherwise; and whether or not loss was sustained from, or arose out of the results of, or use of, the NASA software and/or technical data. The United States Government disclaims all warranties and liabilities regarding third party computer software, data, or documentation, if present in the NASA software and/or technical data, and distributes it "AS IS."

- b. Recipient agrees to waive any and all claims against the U.S. Government and its contractors and subcontractors, and will indemnify and hold harmless the United States Government and its contractors and subcontractors for any liabilities, demands, damages, expenses, or losses that may arise from recipient's use of the NASA software and/or technical data, including any damages from products based on, or resulting from, the use thereof.
- c. If recipient further releases or distributes the NASA software and/or technical data, recipient agrees to obtain this identical waiver of claims, indemnification, and hold harmless agreement with any entities that are provided with the NASA software and/or technical data.
- d. Notwithstanding the above, when recipient is prohibited by law from providing indemnification, the indemnification requirements specified above should not apply to recipient.
- 3.5 Notices
- 3.5.1 Copyright and restrictive notices, will be included in the SUA.
- 3.5.1.1 Where practicable, copyright and restrictive notices will be embedded in the software, displayed on software startup, and/or be attached as a label to the software medium released.
- 3.5.1.2 Copyright Notice. Software released by NASA will normally include a copyright notice.
- a. For purposes of the year of first publication used in the copyright notices below, publication means the first distribution of software to an entity external to NASA as a Public Release or Open Source Release. If software has only been released under one of the more restrictive release categories that do not allow further release, it is not considered to be published and only an unpublished work copyright notice will be used. If a particular software version includes all or parts of earlier versions that have been released at different times, the year of first publication may include multiple years or a range of years that correspond to the various releases (e.g., Copyright 2010 or 2012-2014).
- b. The SRA shall consult with the Center Patent or IP Counsel to determine if a copyright notice is required and, if so, the proper copyright notice to include in the software or SUA.
- c. The following are example copyright notices.
- (1) For unpublished software that is a work of the U.S. Government, i.e., software coded entirely by U.S. Government employees as part of their employment, use:

Unpublished Work Copyright [year software version completed] United States Government as represented by the Administrator of the National Aeronautics and Space Administration. No

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copyright is claimed in the United States under Title 17, U.S. Code. All Other Rights Reserved

(2) For published software that is a work of the U.S. Government, use:

Copyright [year of first publication] United States Government as represented by the Administrator of the National Aeronautics and Space Administration. No copyright is claimed in the United States under Title 17, U.S. Code. All Other Rights Reserved.

(3) For unpublished software created in whole or in part by a non-Federal entity and assigned to the U.S. Government, use:

Unpublished Work Copyright [year software version completed] United States Government as represented by the Administrator of the National Aeronautics and Space Administration. All Rights Reserved.

(4) For published software created in whole or in part by a non-Federal entity and assigned to the U.S. Government, use:

Copyright [year of first publication] United States Government as represented by the Administrator of the National Aeronautics and Space Administration. All Rights Reserved.

- d. In the event NASA has been granted the right to release software owned by third parties (e.g., through written permission or license from the software owner), any third party copyright notices on such software will be included in the SUA or in a readme file within the software (e.g., as is the practice in Open Source Releases).
- 3.5.1.3 Restrictive Notice.
- a. The following general restrictive notice should be included in the SUA for all releases except for an Approved for NASA Release:

This software may be used, reproduced, and provided to others only as permitted under the terms of the contract or other agreement under which it was acquired from the U.S. Government. Neither title to nor ownership of the software is hereby transferred. This Notice shall remain on all copies of the software.

- b. Any specific use and disclosure restrictions will also be specified in the SUA.
- 3.6 Software Release Records and Metrics Reporting
- 3.6.1 Software Release Records. The Center SRA shall establish and maintain Software Release Records. The unrestricted release of NASA software (i.e., without an appropriate SUA or release record) is prohibited. An unidentified release of NASA software does not provide NASA with the ability to measure the interest generated by the software or track the user of a particular version of the software.
- 3.6.1.1 Software and Software Release Records will be safeguarded, retained, and disposed of per guidance provided in NPR 1441.1.
- 3.6.2 If the release is solely by electronic means, an Internet Protocol Address, by itself, is insufficient for identification purposes. In an effort to track usage and maintain accurate records, each recipient should be requested to register with a NASA point of contact for all transfers of Public Release or Open Source software for which no Software Release Record was required (e.g., release by click wrap agreement). The Center official designated by the Center Director, or his/her

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designee(s), is the point of contact for the purposes of establishing this registration regarding software release at that Center.

- 3.6.3 The performance measures or metrics, as established by NPD 7120.4, will be reported semiannually (due 2 weeks following the end of 2nd and 4th fiscal year quarters) by the Center SRA to the Chief Technologist at NASA Headquarters.
- 3.6.3.1 To the extent feasible, NTTS shall be used to record and maintain metrics data.

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Appendix A. Definitions

Software Terminology

Click Wrap Agreement - A form of Software Usage Agreement used when providing the software over the Internet that requires a user to read and accept the terms of a usage agreement before the user may download, install, or use the software.

Computer Database - A collection of data in a form capable of being processed by a computer through the use of a computer program performing the function of storing, manipulating, or formatting.

Computer Programs - A set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result.

Licensable Software - A software for which the U.S. Government owns a domestic or foreign copyright, or a patent application or issued patent claiming the software or the underlying process or method implemented by the software.

Mobile Applications - Mobile software solutions which access application data by utilizing the device's native interface user controls, Application Programming Interfaces (APIs), and Software Development Kits (SDKs). Mobile software solutions, which can be accessed by a browser on a mobile device. Internal (enterprise) mobile applications are designed specifically for use by the NASA workforce. External, or Public, mobile applications are typically designed for broad distribution to the general public with an educational outreach objective or to provide the general public with access to the NASA experience.

New Technology Representative - Person at the Center who is designated to administer the "New Technology" or "Patent Rights" clause in procurement contracts and to receive disclosures by the contractor of subject inventions and reportable items made under the contract. A full description of the New Technology Representative's responsibilities is set forth in 1827.305-370 of the NASA FAR Supplement.

Object Code - Machine language; that programming language which is directly readable and executable by a computer, also referred to as Executable Code.

Open Source Software - Software where the recipient is free to use the software for any purpose, to make copies of the software and to distribute the copies without payment of royalties, to modify the software and to distribute the modified software without payment of royalties, to access and use the source code of the software, and to combine the software with other software in accordance with Open Source licenses/agreements. Open Source Software is a subcategory of Publicly Releasable software.

Open Source Software Development -

- (1) the incorporation of external Open Source Software into software developed by or for NASA; or
- (2) the original development by or for NASA of software intended for Open Source release.

Publicly Releasable Software - Software for which a recommendation of Public Release has been

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made to the Center SRA by the Center Office or Project that has the responsibility for the software, with concurrence by the Center official designated by the Center Director for technology commercialization assessments (1.1.2.3), the Center Patent or IP Counsel, and the CEA, or their designees, and any other applicable officials required herein. Publicly Releasable Software may or may not be protected by a copyright or patent.

NASA Center 508 Coordinator - That person at a Center responsible for ensuring the Center's activities, which include software release, are compliant with The Workforce Investment Act of 1998, which amended Section 508 of the Rehabilitation Act of 1973. The NASA Center 508 Coordinators are identified at www.nasa.gov/accessibility/.

Software - In accordance with NPD 7120.4, software as used in this NPR for purpose of the reporting, review, and assessment requirements of this NPR includes computer programs in both source and object code but does not include computer databases, software documentation, or technical papers unless they disclose source code. Applicable software documentation may be released with the software.

Software Accepted (As-Built) Baseline - Baseline established after the software has been accepted by the intended NASA user. Software Accepted (As-Built) Baseline contains updated versions of the items in the Software Product Baseline, with corrections for nonconformance found during the acceptance process.

Software Code Baseline is the baseline established at the end of the software implementation phase. During the software implementation phase, the software is coded and unit tested. All documentation is produced in quasi-final form, including internal code documentation. At the end of the phase, all required products are ready for delivery, subject to modification during integration and testing. It includes:

- a. Software detailed design specification.
- b. Build and test plans.
- c. The code itself.
- d. Code level documentation.
- e. Users manuals.
- f. Test procedures for the integration and test phase.
- g. Data needed for operation of the software.

Software Documentation - Documentation and data pertaining to the development and operation of software and that explains the capabilities of the software or provides operating instructions for using the software to obtain the desired results. Software Documentation may be provided as owner's manuals, user's manuals, installation instructions, operating instructions, and other similar items. Software Documentation may include design details, algorithms, processes, procedures, rules, flow charts, formulae, and related information that would enable particular NASA software, or functional equivalents thereof, to be reproduced or created. Premature release of such information may jeopardize intellectual property protection and commercialization of the software to which it relates. Thus, it is advisable that such information not be released unless the Center Patent or IP Counsel has approved the software for release.

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Software Innovator - Person who designs and creates software and includes individuals contributing to the concept expressed by the software (i.e., the developers of the underlying functional method or process that is implemented by the software) as well as those individuals involved in coding the actual software.

Software Product Baseline - Baseline established at the completion of the Integration and Test Phase. Software Product Baseline is ready for acquirer acceptance testing and delivery. It includes, in addition to the updated contents of the Software Code Baseline, the following:

- a. The tested code.
- b. Final versions of all products and documents.

Software Release Record - The form of documentation by which the release of NASA software is recorded. A Software Release Record contains the recipient's name, address, phone number, and e-mail address and the date of transfer, name, and version of software transferred.

Software Usage Agreement (SUA) -The legal document issued by NASA that defines the terms and conditions of release. A SUA is signed or otherwise agreed to by the recipient to allow the recipient to receive the requested software.

Source C - A representation of object code in a human readable programming language such as BASIC, FORTRAN, C++, Ada, JAVA, and SQL.

Unrestricted Release - The unrestricted access to, or distribution of, software, including electronic transmission, to an individual or organization outside NASA or its contractors or grantees, without an appropriate SUA or release record. This type of release is not allowed by Agency policy.

Websites - Browser-based markup language documents that are linked together and accessed over the Internet. Websites can display text content, data, images and video. They can also access system-specific features such as location-based mapping and include integrated databases, raw data input to or output from a computer program. A webpage is a single page/document of content on a website.

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Appendix B. Acronyms

ACIP Agency Counsel for Intellectual Property

CEA Center Export Administrator

CISO Chief Information Security Officer

EAR **Export Administration Regulations**

e-NTR NASA Electronic New Technology Reporting System

FAR Federal Acquisition Regulations

FOIA Freedom of Information Act

GFI Government Furnished Information

IP **Intellectual Property**

OCT Office of the Chief Technologist

ITAR International Traffic in Arms Regulations

Jet Propulsion Laboratory, a Federally Funded Research and Development JPL

Center

NASA National Aeronautics and Space Administration

NIST National Institute of Standards and Technology

NOSA NASA Open Source Agreement

NPD **NASA Policy Directive**

NPR NASA Procedural Requirement

NTR New Technology Report

NTTS NASA Technology Transfer System

SUA Software Use Agreement

SRA Software Release Authority

SRAWG Software Release Authority Working Group

SWG Software Working Group

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Appendix C. References

- C.1 NPD 2000.1, Authority To Take Certain Actions For The General Counsel.
- C.2 NPR 7120.5, NASA Space Flight Program and Project Management Requirements.
- C.3 NPR 7120.7, NASA Information Technology and Institutional Infrastructure Program and Project Management Requirements.
- C.4 NPR 7120.8, NASA Research and Technology Program and Project Management Requirements