



Reply to Attn of: **Procurement Division**

Ms. Jeanne Holm
City of Los Angeles
200 N Spring St Ste 303
Los Angeles, CA 90012-3239

Subject: Grant Number 80NSSC20K0246

Dear Ms. Holm:

The NASA Shared Services Center (NSSC) has completed the award of the subject grant/cooperative agreement and looks forward to working with your organization in its administration. Please take time to read through the award documents and note the contact information for the Administrative Grant Officer entered in Section 13 of the NASA Form 1687 as Administrator. To facilitate efficient processing of grant awards, the NSSC utilizes the Customer Contact Center for answering recipient questions and requests. This enables the Grant Officer to effectively review and award grant packages and funding supplements in a timely manner.

The grant award and administration by the NSSC does not change the line of communication between your organization and the NASA scientific, technical and educational communities. Please access the NSSC Grant Status Query System at <https://www.nssc.nasa.gov/grantstatus> to check the status of any future supplements to this award.

As of August 2019, all NASA Terms and Conditions have been pulled from 2 CFR 1800 to the NASA Grant and Cooperative Agreement Manual (GCAM), Appendix D. The terms and conditions are the same only the reference number is different.

NASA Grant Recipients are able to draw down funds as necessary through the Department of Health and Human Services (DHHS) Payment Management System (PMS) unless indicated in the award. Grant Recipients who do not have an account with the DHHS Payment Management System (PMS) are required to complete an SF-1199A and Direct Deposit Sign-up on PMS's website. The instruction to begin the process may be found at <https://pms.psc.gov/grant-recipients/access-newuser.html>. *NOTE: The SAM account information for your organization should be the same information when the DHHS Payment Management System account is set up.*

NASA Insignia Guidelines

NASA has formulated new guidelines which are aimed to simplify and expand NASA Insignia use by NASA grantees (including cooperative agreement recipients, collectively herein, "Grantees"). The purpose of these guidelines is to increase awareness of NASA's mission activities via Grantee partnerships for a broader and more diverse population. Please see Guidance of NASA Insignia Use - UPDATED located at <https://www.nssc.nasa.gov> for more details.

Single Audit Requirements:

Remember, if your organization expends \$750,000 or more during your fiscal year in Federal awards your organization must have a single audit conducted in accordance with 2 CFR 200.514 of the Uniform Guidance.

Required Publications and Reports:

Recipients must submit the publications and reports by the due dates to the personnel listed in the “Required Publications and Reports” section of the award documents. The contact information for these individuals is listed in the “Point of Contact” section of the award documents.

All reports related to the Grant Officer must be submitted to the NSSC Procurement Office by fax, e-mail or mail at the numbers or address below. Please include the Grant Number in the subject line.

Fax : (866) 779-6772

E-mail: nssc-grant-report@mail.nasa.gov

Mail: NASA Shared Services Center
Attn: Office of Procurement –SP
Building 1111, Jerry Hlass Road
Stennis Space Center, MS 39529

Please submit the “Subject Inventions/Reportable Items Interim and Final Summary Report” electronically on the New Technology Reporting Web site (eNTRe) located at <http://invention.nasa.gov>.

All other final reports submitted for closeout (pursuant to the “Required Publications and Reports” section of the award documents) should be sent by e-mail to NSSC-closeout@mail.nasa.gov. Any questions regarding the closeout process may also be sent to this e-mail address.

Any questions, please contact 1-877-677-2123 (1-877-NSSC123) or send an e-mail to nssc-contactcenter@nasa.gov.

Sincerely,

NSSC
Grants Officer

Enclosure



National
Aeronautics and
Space
Administration

NASA Grant and Cooperative Agreement

CFDA No.: 43.001 SCIENCE

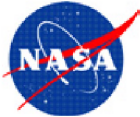
CHOOSE ONE:

- ☐ COOPERATIVE
AGREEMENT
- ☒ GRANT

CHOOSE ONE: ☐ EDUCATION ☐ FACILITIES ☒ RESEARCH ☐ TRAINING

NASA Grant and Cooperative Agreement Web Site: <http://prod.nais.nasa.gov/pub/pub_library/srba/index.html>

1. FEDERAL AWARD IDENTIFICATION NO. 80NSSC20K0246		2. SUPPLEMENT NUMBER		3. PERIOD OF PERFORMANCE 05/18/2020 - 05/17/2022			
4. RECIPIENT NAME/ADDRESS (No., Street, City/County, State, Zip) LOS ANGELES, CITY OF 200 N SPRING ST STE 303 LOS ANGELES CA 90012-3239			5. AWARDOING ORGANIZATION NASA Shared Services Center (NSSC) Building 1111, Jerry Hlass Road Stennis Space Center MS 39529-0001				
6. EMPLOYER IDENTIFICATION NO. (EIN)			7. UNIQUE ENTITY IDENTIFIER 069928349				
8. PRINCIPAL INVESTIGATOR/STUDENT/ORGANIZATION'S PROJECT OR PROGRAM MGS. (Name, Email & Phone) JEANNE HOLM, JEANNE.HOLM@LACITY.ORG, 213-978-3340							
9. PROPOSAL NO., TITLE, AND PROJECT DESCRIPTION 18-AIST18-0099, Predicting What We Breathe: Using Machine Learning to Understand Air Quality							
10A.		AMOUNT OF AWARD		10B.		FUNDS OBLIGATED	
PREVIOUS		\$0.00		PREVIOUS		\$0.00	
THIS ACTION		\$822,271.00		THIS ACTION		\$345,552.00	
TOTAL		\$822,271.00		TOTAL		\$345,552.00	
11. NASA ACCOUNTING AND APPROPRIATION DATA See Continuation Sheet If Applicable					12. PR NUMBER See Schedule		
13. NASA POINTS OF CONTACT REQUIRING CENTER: Goddard Space Flight Center							
	NAME		MAIL STOP	TELEPHONE	E-MAIL ADDRESS		
TECHNICAL OFFICER	JACQUELINE LEMOIGNE-STEWART		407.0	301-286-8723	SEE POC SHEET		
NEGOTIATOR							
ADMINISTRATOR	JULIE DELGADO		XD010	877-677-2123	NSSC-CONTACTCENTER@NASA.GOV		
PAYMENTS	NSSC CONTACT CENTER		XD010	877-677-2123	NSSC-CONTACTCENTER@NASA.GOV		
14. THIS AWARD IS MADE UNDER THE AUTHORITY OF 51 U.S.C. 20113(e) AND IS SUBJECT TO ALL APPLICABLE LAWS AND REGULATIONS OF THE UNITED STATES IN EFFECT ON THE DATE OF THIS AWARD, INCLUDING, BUT NOT LIMITED TO <input type="checkbox"/> 14 CFR PART 1274. <input checked="" type="checkbox"/> 2 CFR 1800.							
15. APPLICABLE STATEMENT(S), IF CHECKED: <input type="checkbox"/> NO CHANGE IS MADE TO EXISTING TERMS AND CONDITIONS <input checked="" type="checkbox"/> R&D TERMS AND CONDITIONS AND NASA AGENCY-SPECIFIC REQUIREMENTS APPLY TO THIS GRANT				16. APPLICABLE ENCLOSURE(S), IF CHECKED: <input checked="" type="checkbox"/> TERMS AND CONDITIONS <input type="checkbox"/> SPECIAL CONDITIONS <input checked="" type="checkbox"/> REQUIRED PUBLICATIONS AND REPORTS			



National
Aeronautics and
Space
Administration

NASA Grant and Cooperative Agreement

CFDA No.: 43.001 SCIENCE

CHOOSE ONE:

☐ COOPERATIVE
AGREEMENT

☒ GRANT

THE UNITED STATES OF AMERICA
NATIONAL AERONAUTICS
AND SPACE ADMINISTRATION

Recipient



A recipient indicates acceptance of an award and its associated terms and conditions by drawing or requesting funds from the designated NASA payment system or office.



Recipient is required to sign this document and return copies.

NAME OF GRANT OFFICER

NAME AND TITLE OF AUTHORIZED REPRESENTATIVE
(Type or print)

SIGNATURE

DATE

BENJAMIN

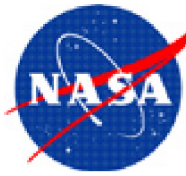
Digitally signed by
BENJAMIN BENVENUTTI

SIGNATURE

DATE

BENVENUTTI

Date: 2020.05.15
15:42:29 -05'00'



NASA Grant and Cooperative Agreement

ITEM NO. (A)	ITEM OR SERVICE (Include Specifications and Special Instructions) (B)	QUANTITY (C)	UNIT (D)	ESTIMATED COST	
				UNIT PRICE (E)	AMOUNT (F)
	<p>Direct Labor Costs: \$263,678.00 Direct Costs - Equipment: \$45,000.00 Direct Costs - Travel: \$6,000.00 Other Direct Costs: \$507,593.00 Total Costs: \$822,271.00 Total award value is \$822,271.00</p> <p>We propose the development of advanced Machine Learning (ML)-based algorithms and models that links ground-based in situ and space-based remote sensing observations of major AQ components, with the aim to (a) classify patterns in urban air quality, (b) enable the deduction and forecast of air pollution events related to PM2.5 and ozone from space-based observations, and ultimately (c) identify similarities in AQ regimes between megacities around the globe for improved air pollution mitigation strategies. Furthermore, this proposal will help us understand the correlation between air pollution and health conditions all over the City of Los Angeles, and predict individuals health risks related to air pollution based on air quality measurements. Using the City of Los Angeles as a test case, this proposal work will focus on elements (a) and (b), with the extension to element (c) envisaged for follow-on studies.</p>				
0001	<p>Holm, Jeanne</p> <p>Incrementally Funded Amount \$345,552.00</p> <p>Purchase Requisition: 4200715786 Fund: SCEX22020D Appropriation: 8020/210120 Amount: \$80,000.00Purchase Requisition: 4200727071 Fund: SCEX22020D Appropriation: 8020/210120 Amount: \$265,552.00</p>				\$822,271.00

AWARD TERMS AND CONDITIONS

<u>Location</u>	<u>Title</u>	<u>Date</u>
Appendix A to 2 CFR Part 25	Universal identifier and System of Award Management (SAM).	Dec. 26, 2014
Appendix A to 2 CFR Part 170	Reporting Subawards and Executive Compensation	Dec. 26, 2014
2 CFR 175	Trafficking in persons.	Dec. 26, 2014
2 CFR 182	Government-wide requirements for Drug-Free Workplace	Dec. 26, 2014
GCAM Appendix D1	Compliance with OMB Guidance on Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal awards.	Aug. 1, 2019
GCAM Appendix D2	Technical publications and reports.	Aug. 1, 2019
GCAM Appendix D3	Extensions.	Aug. 1, 2019
GCAM Appendix D4	Termination and enforcement.	Aug. 1, 2019
GCAM Appendix D5	Change in principal investigator or scope.	Aug. 1, 2019
GCAM Appendix D6	Financial management.	Aug. 1, 2019
GCAM Appendix D7	Equipment and other property.	Aug. 1, 2019
GCAM Appendix D8	Patent rights.	Aug. 1, 2019
GCAM Appendix D9	Rights in data.	Aug. 1, 2019
GCAM Appendix D10	National security.	Aug. 1, 2019
GCAM Appendix D11	Nondiscrimination.	Aug. 1, 2019
GCAM Appendix D12	Clean air and water.	Aug. 1, 2019
GCAM Appendix D13	Investigative requirements.	Aug. 1, 2019
GCAM Appendix D14	Travel and transportation.	Aug. 1, 2019
GCAM Appendix D15	Safety.	Aug. 1, 2019
GCAM Appendix D16	Buy American encouragement.	Aug. 1, 2019
GCAM Appendix D17	Investigation of research misconduct.	Aug. 1, 2019
GCAM Appendix D18	Allocation of risk/liability.	Aug. 1, 2019

Unless otherwise specified, the terms and conditions in D1 to D18 and the requirements in 2 CFR 170,

175, and 182 apply and are incorporated by reference. To view full text of these requirements and terms and conditions go to https://prod.nais.nasa.gov/pub/pub_library/srba/index.html to view the NASA Grant and Cooperative Agreement Manual (GCAM).

Restrictions on Funding Activities with China

(a) Pursuant to The Department of Defense and Full-Year Appropriation Act, Public Law 112-10, Section 1340(a); The Consolidated and Further Continuing Appropriation Act of 2012, Public Law 112-55, Section 539; and future-year appropriations (hereinafter, "the Acts"), NASA is restricted from using funds appropriated in the Acts to enter into or fund any grant or cooperative agreement of any kind to participate, collaborate, or coordinate bilaterally with China or any Chinese-owned company, at the prime recipient level or at any subrecipient level, whether the bilateral involvement is funded or performed under a no-exchange of funds arrangement.

(b) Definition: "China or Chinese-owned Company" means the People's Republic of China, any company owned by the People's Republic of China, or any company incorporated under the laws of the People's Republic of China.

(c) The restrictions in the Acts do not apply to commercial items of supply needed to perform a grant or cooperative agreement.

(d) Subaward - The recipient shall include the substance of this provision in all subawards made hereunder.

[End of Provision]

Personal Identity Verification of Recipient Personnel (Dec 2014)

(a) The Recipient shall comply with agency personal identity verification procedures identified in the contract that implement Homeland Security Presidential Directive-12 (HSPD-12), Office of Management and Budget (OMB) guidance M-05-24 and Federal Information Processing Standards Publication (FIPS PUB) Number 201.

(b) The Recipient shall account for all forms of Government-provided identification issued to the Recipient employees in connection with performance under this contract. The Recipient shall return such identification to the issuing agency at the earliest of any of the following, unless otherwise determined by the Government:

- (1) When no longer needed for grant performance.
- (2) Upon completion of the Recipient's employee's employment.
- (3) Upon grant completion or termination.

(c) The Grant Officer may delay final payment under a grant if the Recipient fails to comply with these requirements.

(d) The Recipient shall insert the substance of this clause, including this paragraph (d), in all subcontracts or subagreements when their employees are required to have routine physical access to a Federally-controlled facility and/or routine access to a Federally-controlled information system. It shall be the responsibility of the Recipient to return such identification to the issuing agency in accordance with the terms set forth in paragraph (b) of this section, unless otherwise approved in writing by the Grant Officer.

[End of Provision]

Restrictions on the Use of the NASA Seal, Insignia, Logotype, Program Identifiers, or Flags (Aug 2019)

(a) In accordance with 14 CFR Part 1221, the NASA Seal, NASA Insignia, NASA Logotype, NASA Program Identifiers, and the NASA Flags are protected and shall be used exclusively to represent NASA, its programs, projects, functions, activities, or elements.

(b) The use of these devices by recipients shall be governed by the requirements and restrictions set forth at 14 CFR §§ 1221.109-113. **This is updated per the GCAM**

(c) The use of these devices by recipients for any purpose other than as authorized by NASA regulations shall be prohibited. Their misuse shall be subject to the penalties authorized by statute, as set forth in 14 CFR §1221.115 and shall be reported as provided in 14 CFR §1221.116.

[End of Provision]

Recipient Integrity and Performance Matters (January 2016)

A. General Reporting Requirement

If the total value of your currently active grants, cooperative agreements, and procurement contracts from all Federal awarding agencies exceeds \$10,000,000 for any period of time during the period of performance of this Federal award, then you as the recipient during that period of time must maintain the currency of information reported to the System for Award Management (SAM) that is made available in the designated integrity and performance system (currently the Federal Awardee Performance and Integrity Information System (FAPIIS)) about civil, criminal, or administrative proceedings described in paragraph 2 of this award term and condition. This is a statutory requirement under section 872 of Public Law 110-417, as amended (41 U.S.C. 2313). As required by section 3010 of Public Law 111-212, all information posted in the designated integrity and performance system on or after April 15, 2011, except past performance reviews required for Federal procurement contracts, will be publicly available.

2. Proceedings About Which You Must Report

Submit the information required about each proceeding that:

- a. Is in connection with the award or performance of a grant, cooperative agreement, or procurement contract from the Federal Government;
- b. Reached its final disposition during the most recent five year period; and
- c. Is one of the following:
 - (1) A criminal proceeding that resulted in a conviction, as defined in paragraph 5 of this award term and condition;
 - (2) A civil proceeding that resulted in a finding of fault and liability and payment of a monetary fine, penalty, reimbursement, restitution, or damages of \$5,000 or more;
 - (3) An administrative proceeding, as defined in paragraph 5. of this award term and condition, that resulted in a finding of fault and liability and your payment of either a monetary fine or penalty of \$5,000 or more or reimbursement, restitution, or damages in excess of \$100,000; or
 - (4) Any other criminal, civil, or administrative proceeding if:
 - (i) It could have led to an outcome described in paragraph 2.c.(1), (2), or (3) of this award term and condition;

- (ii) It had a different disposition arrived at by consent or compromise with an acknowledgment of fault on your part; and
- (iii) The requirement in this award term and condition to disclose information about the proceeding does not conflict with applicable laws and regulations.

3. Reporting Procedures

Enter in the SAM Entity Management area the information that SAM requires about each proceeding described in paragraph 2 of this award term and condition. You do not need to submit the information a second time under assistance awards that you received if you already provided the information through SAM because you were required to do so under Federal procurement contracts that you were awarded.

4. Reporting Frequency

During any period of time when you are subject to the requirement in paragraph 1 of this award term and condition, you must report proceedings information through SAM for the most recent five year period, either to report new information about any proceeding(s) that you have not reported previously or affirm that there is no new information to report. Recipients that have Federal contract, grant, and cooperative agreement awards with a cumulative total value greater than \$10,000,000 must disclose semiannually any information about the criminal, civil, and administrative proceedings.

5. Definitions

For purposes of this award term and condition:

- a. Administrative proceeding means a non-judicial process that is adjudicatory in nature in order to make a determination of fault or liability (e.g., Securities and Exchange Commission Administrative proceedings, Civilian Board of Contract Appeals proceedings, and Armed Services Board of Contract Appeals proceedings). This includes proceedings at the Federal and State level but only in connection with performance of a Federal contract or grant. It does not include audits, site visits, corrective plans, or inspection of deliverables.
- b. Conviction, for purposes of this award term and condition, means a judgment or conviction of a criminal offense by any court of competent jurisdiction, whether entered upon a verdict or a plea, and includes a conviction entered upon a plea of nolo contendere.
- c. Total value of currently active grants, cooperative agreements, and procurement contracts includes—
 - (1) Only the Federal share of the funding under any Federal award with a recipient cost share or match; and
 - (2) The value of all expected funding increments under a Federal award and options, even if not yet exercised.

[End of Provision]

Micro-purchase Threshold (October 2017)

The non-Federal entity must use one of the methods of procurement as prescribed in 2 CFR 200.320 (A). As defined in 2 CFR 200.67, the micro-purchase threshold for acquisitions of supplies or services made under grant and cooperative agreement awards is —

- (i) \$10,000; or
- (ii) As set by 48 CFR Subpart 2.1 FAR or

- (iii) Such higher threshold as determined appropriate by the head of the relevant executive agency and consistent with audit findings under chapter 75 of Title 31, United States Code, internal institutional risk assessment, or State law.

[End of Provision]

GCAM Appendix D20 Multiple Year Award (Aug 2019)

This is a multiple-year award contingent on the availability of funds, scientific progress of the project, and continued relevance to NASA programs. NASA anticipates continuing support at approximately the following levels:

Second year \$473,991.00, Anticipated funding date 5/18/2021.

[End of Term and Condition]

GCAM Appendix D21 Incremental Funding (Aug 2019)

(a) Only \$345,552.00 of the amount indicated on the face of this award is available for payment and allotted to this award. NASA contemplates making additional allotments of funds during performance of this effort. It is anticipated that these funds will be obligated as appropriated funds become available without any action required by the recipient. The recipient will be given written notification by the NASA Grant Officer.

(b) The recipient agrees to perform work up to the point at which the total amount paid or payable by the Government approximates but does not exceed the total amount actually allotted to this award. NASA is not obligated to reimburse the recipient for the expenditure of amounts in excess of the total funds allotted by NASA to this grant or cooperative agreement. The recipient is not authorized to continue performance beyond the amount allotted to this award.

Special Note—Balance is contingent on availability of funds. The remaining balance to fully fund this year is \$2,728.00.

[End of Term and Condition]

GCAM Appendix D24 Designation of New Technology Representative and Patent Representative (Aug 2019)

(a) For purposes of administration of the term and condition entitled “New Technology,” or “Patent Rights” whichever is included, the following named representatives are hereby designated by the Grant Officer to administer such term and condition—

- New Technology Representative
- Patent Representative

(b) Reports of reportable items, and disclosure of subject inventions, interim reports, final reports, utilization reports, and other reports required by the term and condition, as well as any correspondence with respect to such matters, should be directed to the New Technology Representative, with notification to the Grant Officer, unless transmitted in response to correspondence or request from the Patent

Representative. Inquires or requests regarding disposition of rights, election of rights, or related matters should be directed to the Patent Representative. This term and condition shall be included in any subaward/subcontract hereunder requiring a “New Technology” term and condition or “Patent Rights—Retention by the Contractor (Short Form)” term and condition unless otherwise authorized or directed by the Grant Officer. The respective responsibilities and authorities of the above named representatives are set forth in the Grants and Cooperative Agreement Manual.

[End of Term and Condition]

GCAM Appendix D30 Access to Research Results (Aug 2019)

ACCESS TO RESEARCH RESULTS

(a) This award is subject to the requirements of the, “NASA Plan: Increasing Access to the Results of Scientific Research,” which covers public access to digital scientific data and peer-reviewed publications. For purposes of this term and condition, the following definitions apply:

- (1) Awardee: Any recipient of a NASA grant or cooperative agreement, its investigators, and subrecipient (subaward or contract as defined in 2 CFR Part 200.92 and 200.22, respectively) at any level.
- (2) Final Peer-Reviewed Manuscript: The final text version of a peer-reviewed article disclosing the results of scientific research which is authored or co-authored by the Awardee or funded, in whole or in part, with funds from a NASA award, that includes all modifications from the publishing peer review process, and all graphics and supplemental material prepared by Awardee.

(b) The recipient shall:

- (1) Comply with their approved Data Management Plan submitted with its proposal, and as modified upon agreement by the recipient and NASA from time to time during the course of the period of performance.
- (2) Ensure that any Final Peer-Reviewed Manuscript is submitted to the NASA-designated repository, currently the PubMed Central system at <http://www.ncbi.nlm.nih.gov/pmc/>. NASA instructions for completing the submission process are available at <https://www.nasa.gov/open/researchaccess/pubspace>. Ensure that the Final Peer-Reviewed Manuscript is submitted to PubMed Central within one year of completion of the peer-review process.
- (3) Ensure that any publisher’s agreements entered into by an Awardee will allow for the Awardee to comply with these requirements including submission of Final Peer-Reviewed Manuscripts to the NASA-designated repository, as listed in (b)(2), with sufficient rights to permit such repository to use such Final Peer-Reviewed Manuscript in its normal course, including rights to permit users to download XML and plain text formats.
- (4) Hereby represent and warrant that Awardee has secured for recipient the right to submit the Final Peer-Reviewed Manuscript to the NASA-designated repository for use as set forth herein.
- (5) Include in annual and final reports a list of Final Peer-Reviewed Manuscripts covered by this term and condition.

[End of Term and Condition]

Reporting Requirements Regarding Sexual Harassment, Other Forms of Harassment, or Sexual Assault (April 9, 2020)

- (a) The Principal Investigator (PI) and any Co-Investigator(s) (Co-I) identified on a NASA award are in a position of trust. These individuals must comport themselves in a responsible and accountable manner during the award period of performance, whether at the recipient’s institution, on-line, or at

locales such as field sites, facilities, or conferences/workshops. Above all, NASA wishes to assure the safety, integrity, and excellence of the programs and activities it funds.

(b) For purposes of this term and condition, the following definitions apply:

- (1) Administrative Leave/ Administrative Action: Any temporary/ interim suspension or permanent removal of the PI or Co-I, or any administrative action imposed on the PI or Co-I by the recipient under organizational policies or codes of conduct, statutes, regulations, or executive orders, relating to activities, including but not limited to the following: teaching, advising, mentoring, research, management/ administrative duties, or presence on campus.
- (2) Finding/Determination: The final disposition of a matter involving sexual harassment or other form of harassment under organizational policies and processes, to include the exhaustion of permissible appeals exercised by the PI or Co-I, or a conviction of a sexual offense in a criminal court of law.
- (3) Other Forms of Harassment: Non-gender or non-sex-based harassment of individuals protected under federal civil rights laws, as set forth in organizational policies or codes of conduct, statutes, regulations, or executive orders.
- (4) Sexual harassment: May include but is not limited to gender or sex-based harassment, unwelcome sexual attention, sexual coercion, or creating a hostile environment, as set forth in organizational policies or codes of conduct, statutes, regulations, or executive orders.

(c) *The recipient is required to report to NASA:*

- (1) Any finding/determination regarding the PI or any Co-I¹ that demonstrates a violation of the recipient's policies or codes of conduct, relating to sexual harassment, other forms of harassment, or sexual assault; and/or
- (2) If the PI or any Co-I is placed on administrative leave or if any administrative action has been imposed on the PI or any Co-I by the recipient relating to any finding/determination or an investigation of an alleged violation of the recipient's policies or codes of conduct, statutes, regulations, or executive orders relating to sexual harassment, other forms of harassment, or sexual assault.² Such reporting must be submitted by the Authorized Organizational Representative (AOR) to NASA's Office of Diversity and Equal Opportunity at <https://missionstem.nasa.gov/term-condition-institutional-harassment-discr.html> within 10 business days from the date of the finding/determination, or the date of the placement of a PI or Co-I by the recipient on administrative leave or the imposition of an administrative action.³

(d) Recipient agrees to insert the substance of this term and condition in any subaward/subcontract involving a co-investigator. Recipient will be responsible for ensuring that all reports, including those related to co-investigators, comply with this term and condition.

(e) Each report must include the following information:

- NASA Award Number;
- Name of PI or Co-I being reported;⁴

Type of Report: Select one of the following:

- Finding/Determination that the reported individual has been found to have violated the recipient's policies or codes of conduct, statutes, regulations, or executive orders relating to sexual harassment, other forms of harassment, or sexual assault; *or*
- Placement by the recipient of the reported individual on administrative leave or the imposition of any administrative action on the PI or any Co-I by the recipient relating to any finding/determination, or an investigation of an alleged violation of the recipient's policies or codes of conduct, statutes, regulations, or executive orders relating to sexual harassment, other forms of harassment, or sexual assault.

The recipient must also provide:

- A description of the finding/ determination and action(s) taken, if any; and/or
- The reason(s) for, and conditions of placement of the PI or any Co-I on administrative action or administrative leave.

The recipient, at any time, may propose a substitute investigator if it determines the PI or any Co-I may not be able to carry out the funded project or activity and/or abide by the award terms and conditions.

In reviewing the report, NASA will consider, at a minimum, the following factors:

- a. The safety and security of personnel supported by the NASA award;
 - b. The overall impact to the NASA-funded activity;
 - c. The continued advancement of taxpayer-funded investments in science and scientists; and
 - d. Whether the recipient has taken appropriate action(s) to ensure the continuity of science and that continued progress under the funded project can be made.
- (f) Upon receipt and review of the information provided in the report, NASA will consult with the AOR, or designee. Based on the results of this review and consultation, the Agency may, if necessary and in accordance with 2 CFR 200.338, assert its programmatic stewardship responsibilities and oversight authority to initiate the substitution or removal of the PI or any Co-I, reduce the award funding amount, or where neither of those previous options is available or adequate, to suspend or terminate the award. Other personnel supported by a NASA award must likewise remain in full compliance with the recipient's policies or codes of conduct, statutes, regulations or executive orders relating to sexual harassment, other forms of harassment, or sexual assault. With regard to any personnel not in compliance, the recipient must make appropriate arrangements to ensure the safety and security of other award personnel and the continued progress of the funded project. Notification of these actions is not required under this term and condition.

Other personnel supported by a NASA award must likewise remain in full compliance with awardee policies or codes of conduct, statutes, regulations, or executive orders relating to sexual harassment, other forms of harassment, or sexual assault. With regard to any personnel not in compliance, the awardee must make appropriate arrangements to ensure the safety and security of other award personnel and the continued progress of the funded project. Notification of these actions is not required under this term and condition.

¹ If a co-I is affiliated with a subrecipient organization, the AOR of the subrecipient must provide the requisite information directly to NASA and to the recipient. The subrecipient must act in accordance with Title 2 of the Code of Federal Regulations, Section 200.331, Requirements for Pass-Through Entities.

² Recipient findings/determinations and placement of a PI or Co-I on administrative leave or the imposition of an administrative action must be conducted in accordance with organizational policies and processes. They also must be conducted in accordance with federal laws, regulations, and executive orders.

³ Such report must be provided regardless of whether the behavior leading to the finding/determination, or placement on administrative leave, or the imposition of an administrative action occurred while the PI or Co-I was carrying out award activities.

⁴ other individuals involved in the matter must not be included in the report. In the rare circumstance that information regarding a PI or Co-I is subject to the Family Educational and Privacy Act, 20 U.S implementing regulations, 35 C.F.R. Part 99, the recipient shall comply with those requirements.

[End of Term and Condition]

REQUIRED PUBLICATIONS AND REPORTS

NOTE - Reports are valuable to ensure that the NASA Grants and Cooperative Agreement program is efficient and effective. The recipients must keep such records and submit to the responsible NASA official or designee timely, complete, and accurate reports.

The recipient shall submit the publications and reports indicated below:

ACRONYMS

AGO = ADMINISTRATIVE GRANT OFFICER

IPO = INDUSTRIAL PROPERTY OFFICER

NTR = NEW TECHNOLOGY REPRESENTATIVE

CC = CLOSEOUT CONTRACTOR

PO = PATENT COUNSEL OFFICE

FMO = FINANCIAL MANAGEMENT OFFICE

TO = TECHNICAL OFFICER

GO = NASA GRANT OFFICER

UAO = UNIVERSITY AFFAIRS OFFICER

HHS/PMS = HEALTH AND HUMAN SERVICES PAYMENT MANAGEMENT SYSTEM

STIPO = SCIENTIFIC & TECHNICAL INFORMATION PROGRAM OFFICE

	REPORTS	REPORT DUE/FREQUENCY	DISTRIBUTION
X	Quarterly Federal Cash Transactions Reports (SF 425) <i>(Required for all Grants and Cooperative except grants and agreements where invoicing is required per the terms and conditions of award)</i>	Within 30 days following the end of each quarter of the Federal fiscal year. <i>(Ref. GCAM Appendix D6)</i>	HHS/PMS
X	Annual Inventory Report of Federally-Owned Property in Custody of the Recipient <i>(Required for all Grants and Cooperative Agreements, except when a commercial firm.)</i>	No later than October 15 of each year. NOTE: Negative reports are not required. <i>(Ref. GCAM Appendix D7)</i>	FMO, IPO
X	Progress Reports <i>(Required for all Grants and Cooperative Agreements; unless period of performance is less than one year.)</i>	Annually, 60 days prior to the anniversary date of the grant/cooperative agreement (except final year). <i>(Ref. GCAM Appendix D2)</i>	TO, GO, NTR
X	Disclosure of Subject Inventions/Reportable Items (New Technology Report (NTR)) <i>(Required for all Grants and Cooperative Agreements except for those issued solely to support education programs)</i>	Within 2 months after inventor discloses it to recipient. <i>(Ref. GCAM Appendix D8, D23 and D24)</i> <i>eNTR (http://invention.nasa.gov)</i>	PO, TO, GO, NTR
X	Election of Title to a Subject	Within 2 years of disclosure of a	PO, TO, GO

	Invention <i>(Required for all Grants and Cooperative Agreements)</i>	subject invention being elected, except in any case where publication, on sale or public use of the subject invention being elected has initiated the one-year statutory period wherein valid patent protection can still be obtained in the United States, at least 60 days prior to the end of the statutory period. (Ref. GCAM Appendix D8 and D23)	
X	Interim New Technology Summary Report (NTSR) <i>(Required for all Grants and Cooperative Agreements except for those issued solely to support education programs)</i>	Every 12 months from the date of the grant/cooperative agreement. (Note: Negative reports are required.) (Ref. GCAM Appendix D8, D23 and D24) eNTR (http://invention.nasa.gov)	GO, NTR
X	Notification of Decision to Forego Patent Protection <i>(Required for all Grants and Cooperative Agreements)</i>	As applicable, not less than 30 days before the expiration of the response period required by the relevant patent office. (Ref. GCAM Appendix D8 and D23)	PO, TO, GO
X	Utilization of Subject Invention/Reportable Items <i>(Required for all Grants and Cooperative Agreements except for those issued solely to support education programs)</i>	Every 12 months from the date a subject invention is elected. Note: Negative reports are required. (Ref. GCAM Appendix D8 and D23)	PO, TO, GO
	Annual NASA Form 1018 Property in the Custody of Contractors <i>(Required for all Grants and Cooperative Agreements with commercial organizations)</i>	Due not later than October 15 of each year. Note: Negative reports are required. (Ref. GCAM Appendix D25)	FMO, IPO
	FINAL REPORTS	REPORT DUE	RECIPIENT
X	Final New Technology Summary Report (NTSR) <i>(Required for all Grants and Cooperative Agreements except for those issued solely to support education programs)</i>	Within 90 days after the expiration date of the grant/cooperative agreement. (Note: Negative reports are required.) (Ref. GCAM Appendix D8, D23 and D24) eNTR (http://invention.nasa.gov)	PO, GO, NTR
X	Properly Certified Final Federal Financial Report, SF 425 <i>(Required for all Grants and Cooperative Agreements)</i>	Within 90 days after the expiration date of the grant/cooperative agreement. (Ref. GCAM Appendix D6)	FMO, GO
X	Summary of Research / Education Activity Report <i>(Required for all Grants and</i>	Within 90 days after the expiration date of the grant/cooperative agreement. (Ref. GCAM	TO, GO, NTR, STIPO

	<i>Cooperative Agreements)</i>	<i>Appendix D2) For research related training program grants, the summary of research report is completed by the Student.</i>	
X	Final Inventory Report of Federally-Owned Property <i>(Required for all Grants and Cooperative Agreements, except those issued solely for education programs and grants and cooperative agreements with commercial organizations)</i>	Within 60 days after the expiration date of the grant/cooperative agreement. <i>(Ref. GCAM Appendix D7)</i>	CC, IPO, GO
	Final NASA Form 1018 NASA Property in the Custody of Contractors <i>(Required for Grants and Cooperative Agreements with commercial organizations)</i>	Within 30 days after the expiration of the grant or cooperative agreement. <i>(Ref. GCAM Appendix D25)</i>	FMO, IPO

*Grants and cooperative agreements with colleges, universities, nonprofit organizations, and small businesses will reference GCAM Appendix D8. Grants and cooperative agreements with large businesses will reference GCAM Appendix D23.

SPECIAL CONDITIONS
RESEARCH TERMS AND CONDITIONS (RTC)

For additional information, go to <https://www.nsf.gov/awards/managing/rtc.jsp> (the National Science Foundation hosts the Federal RTC website).

	Reference	RTC Overlay	NASA
Prior Written Approval (prior approval).	200.407		
Use of grant agreements (including fixed amount awards), cooperative agreements, and contracts	200.407(a)		
Changes in principal investigator (PI), project leader, project partner, or scope of effort.	200.201(b)(5)	Required	Required
Cost sharing or matching	200.407(b)		
Use of unrecovered indirect costs, including indirect costs on cost sharing or matching.	200.306(c)	Waived	Waived
Use of current fair market value to determine the value of non-Federal entity donations of services and property for the purposes of cost sharing or matching.	200.306(d)(2)	Waived	Required
Costs of the fair market value of equipment or other capital assets and fair rental charges for land when the Federal award supports activities that require use of equipment, buildings or land.	200.306(h)(2)	Required	Required
Program Income	200.407(c)		
Use of program income during the period of performance (additive method).	200.307(e)(2)	Waived	Waived ¹
Revision of budget and program plans	200.407(d)		
Change in the scope or the objective of the project or program.	200.308(c)(1)(i)	Required	Required
Change in PI/PD specified in the application or Federal award.	200.308(c)(1)(ii)	Required	Required
Disengagement from the project for more than three months, or a 25 percent reduction in time devoted to the project by the approved PI/PD.	200.308(c)(1)(iii)	Required	Required ²
Inclusion, unless waived, of costs that require prior approval in accordance with Subpart E -- Cost Principles.	200.308(c)(1)(iv)	Required	Required
Transfer of funds budgeted for participant support costs to other categories of expense.	200.308(c)(1)(v)	Required	Waived ³
Subawarding, transferring or contracting out any work under a Federal award. This provision does not apply to the acquisition of supplies, material, equipment or general purpose services.	200.308(c)(1)(vi)	Required	Waived
Changes in the approved cost-sharing or matching provided by the non-Federal entity.	200.308(c)(1)(vii)	Required	Waived
Need for additional Federal funding to complete the project.	200.308(c)(1)(viii)	Required	Required
Incur project costs 90 calendar days before the Federal awarding agency makes the award.	200.308(d)(1)	Waived	Waived
Incur project costs more than 90 calendar days pre-award.	200.308(d)(1)	Required	Required
Initiate a one-time extension of the period of performance by up to 12 months.	200.308(d)(2)	Waived	Waived
Subsequent no-cost extension or extension of more than 12 months.	200.308(d)(2)	Required	Required
Carry-forward of unexpended balances to subsequent funding periods.	200.308(d)(3)	Waived	Waived
Transfer amounts budgeted for indirect costs to absorb increases in direct costs, or vice versa.	200.308(d)(4)	Waived	Waived
Rebudgeting among direct cost categories for Federal awards in which the cumulative amount of such transfers exceeds or is expected to exceed 10 percent of the approved budget.	200.308(e)	Waived	Waived ^{3,4}
Transfer of funds between construction and non-construction activities.	200.308(g)(5)	Required	Required
Real Property	200.407(e)		
Encumber real property acquired with Federal funds.	200.311(b)	Required	Required
Transfer of title to the Federal awarding agency or to a third party.	200.311(c)(3)	Required	Required
Special arrangements and alterations costs incurred specifically for a Federal award.	200.462(a)	Required	Required
Equipment	200.407(f)		

	Encumber equipment acquired with Federal funds.	200.313(c)(1)	Required	Waived
Fixed amount subawards		200.407(g)		
	Subawards based on fixed amounts at any dollar amount, provided the subawards meet the requirements for fixed amount awards in 200.201.	200.332	Waived	Required
Direct Costs		200.407(h)		
	Direct charge the salaries of administrative and clerical staff if all conditions in 200.413 are met, excluding 200.413(c)(3).	200.413(c)	Waived	Waived
Compensation – personal services, paragraph (h)		200.407(i)		
	Directly charge payments of incidental activities for which supplemental compensation is allowable under written institutional policy (at a rate not to exceed institutional base salary).	200.430(h)(1)(ii)	Waived	Waived
	Faculty salary in excess of Institutional Base Salary (IBS).	200.430(h)(2)	Required	Required
	Intra-IHE faculty consulting on a Federal award that exceed a faculty member's base salary.	200.430(h)(3)	Waived	Waived
Compensation – fringe benefits		200.407(j)		
	Severance payments to foreign nationals employed by the non-Federal entity outside the US that exceed the amounts customary in the US.	200.431(i)(4)	Required	Required
	Severance payments to foreign nationals employed by the non-Federal entity outside the US due to termination of the foreign national as a result of the closing of, or curtailment of activities by, the non-Federal entity in that country.	200.431(i)(5)	Required	Required
Entertainment costs		200.407(k)		
	Inclusion of costs of entertainment, including amusement, diversion, and social activities and any associated costs that have a programmatic purpose.	200.438	Required	Required
Equipment and other capital expenditures		200.407(l)		
	Direct charge capital expenditures for general purpose equipment.	200.439(b)(1)	Waived	Waived ^{3,5}
	Direct charge capital expenditures for buildings and land use.	200.439(b)(1)	Required	Required
	Direct charge capital expenditures for special purpose equipment over \$5,000.	200.439(b)(2)	Waived	Waived ^{3,5}
	Capital expenditures for improvements to land or buildings which materially increase their value or useful life.	200.439(b)(3)	Required	Required
Exchange rates		200.407(m)		
	Exchange rate fluctuations that result in the need for additional Federal funding, or a reduction in the scope of the project.	200.440(a)	Required	Required
Fines, penalties, damages and other settlements		200.407(n)		
	Costs resulting from non-Federal entity violations of, alleged violations of, or failure to comply with, Federal, State, tribal, local or foreign laws and regulations.	200.441	Required	Required
Fund raising and investment management costs		200.407(o)		
	Costs of organized fund raising for the purposes of meeting the Federal program objectives.	200.442(a)	Required	Required
Goods or services for personal use		200.407(p)		
	Costs of housing (e.g. depreciation, maintenance, utilities, furnishings, rent), housing allowances and personal living expenses.	200.445(b)	Required	Required
Insurance and indemnification		200.407(q)		
	Costs of insurance or of contributions to any reserve covering the risk of loss of, or damage to, Federal Government property.	200.447(b)(2)	Required	Required
Memberships, subscriptions, and professional activity costs, paragraph (c)		200.407(r)		
	Costs of membership in any civic or community organization.	200.454(c)	Required	Required
Organization costs		200.407(s)		
	Costs such as incorporation fees, brokers' fees, fees to promoters, organizers or management consultants, attorneys, accountants, or investment counselor, whether or not employees of the non-Federal entity in connection with establishment or reorganization.	200.455	Required	Required
Participant support costs		200.407(t)		
	Transfer of funds into the participant support cost category.	200.456	Waived	Waived
	Transfer of funds budgeted for participant support costs to other categories of	200.308(c)(1)(v)	Required	Waived ³

	expense.			
Pre-award costs		200.407(u)		
	Inclusion of allowable pre-award costs.	200.458	Waived	Waived
	Incur project costs 90 calendar days before the Federal awarding agency makes the award.	200.308(d)(1)	Waived	Waived
	Incur project costs more than 90 calendar days pre-award.	200.308(d)(1)	Required	Required
Rearrangement and reconversion costs		200.407(v)		
	Direct charge special arrangements and alterations costs incurred specifically for a Federal award.	200.462(a)	Required	Required
Selling and marketing costs		200.407(w)		
	Costs of selling and marketing any products or services of the non-Federal entity (unless allowed under §200.421 Advertising and public relations).	200.467	Required	Required ⁶
Taxes (including Value Added Tax)		200.407(x)		
	Use of foreign tax reimbursement for approved activities under the Federal award.	200.470(c)	Required	Required
Travel costs		200.407(y)		
	Inclusion of travel costs for officials covered by 200.444 General costs of government.	200.474(a)	Required	Required
	Travel costs for dependents for travel of duration of six months or more.	200.474(c)(2)	Required	Required
*	Any of the authorities may be over-ridden by a special term or condition of award.			
1	With prior approval, may use to meet cost share requirement.			
2	Applies to PIs and co-PIs.			
3	Waived unless results in a change of scope.			
4	Waived unless total cost share amount is reduced from what was approved in budget.			
5	Waived if the cost of equipment is appropriately prorated among the activities to be benefitted.			
6	Pertains only to items produced under this award in which the Federal share was used for all or part of the development.			

**GSFC
POINTS OF CONTACT**

Grants Officer	Attn: Grants Officer NASA Shared Services Center Procurement Office, Bldg 1111 Stennis Space Center, MS 39529 NSSC-Grant-Report@mail.nasa.gov
Technical Officer	Attn: Technical Officer NASA Goddard Space Flight Center Greenbelt, MD 20771 jacqueline.j.lemoine-stewart@nasa.gov
Industrial Property Officer	Attn: Industrial Property Officer NASA Goddard Space Flight Center Mail Code: 273 Greenbelt, MD 20771 gsfc-05-grants-co-ops@mail.nasa.gov
Patent Counsel Office	Attn: Patent Counsel Office NASA Goddard Space Flight Center Mail Code: 140.1 Greenbelt, MD 20771 Bryan.A.Geurts@nasa.gov
Health and Human Services Payment Management System (<i>For SF 425s</i>)	Attn: Division of Payment Management P. O. Box 6021 Rockville, MD 20852 https://pms.psc.gov/
<i>Financial Management Office (For commercial grants - invoices)</i>	Attn: FMD-Accounts Payable NASA Shared Services Center Building 1111, Jerry Hlass Road Stennis Space Center, MS 39529 NSSC-AccountsPayable@nasa.gov Phone Number: 877-677-2123 (877-NSSC123) Fax Number: 866-779-6772
Financial Management Office (<i>For inquiries</i>)	Attn: FMD-Grants NASA Shared Services Center Building 1111, Jerry Hlass Road Stennis Space Center, MS 39529 NSSC-ContactCenter@nasa.gov Phone Number: 877-677-2123 (877-NSSC123) Fax Number: 866-779-6772
Financial Management Office (<i>For Annual and Final Inventory Reports of Federally-Owned Property</i>)	Attn: Financial Management Office NASA Goddard Space Flight Center Mail Code: 157.2 Greenbelt, MD 20771 gary.v.morris@nasa.gov barbara.scott@nasa.gov

NASA Center for AeroSpace Information (CASI)

Attn: Document Processing Section
7121 Standard Drive
Hanover, MD 21076
eft_ftp@sti.nasa.gov

New Technology Office

Attn: New Technology Representative
NASA Goddard Space Flight Center
Greenbelt, MD 20771
Robert.S.Leonardi@nasa.gov

Scientific & Technical Information Office (STIO)

Attn: Scientific and Technical Information (STIO)
Program Office
NASA Goddard Space Flight Center
Mail Code: 271
Greenbelt, MD 20771
Joanne.R.Calhoun@nasa.gov
Katherine.I.Sanchez@nasa.gov
eft_ftp@sti.nasa.gov

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Director, Complaints Management Division
NASA Headquarters
Office of Diversity and Equal Opportunity
300 E St. SW
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Washington, DC 20546

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