

NONREIMBURSABLE INTERAGENCY AGREEMENT (PAM 41720)
BETWEEN
THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
ARMSTRONG FLIGHT RESEARCH CENTER
AND
DEFENSE ADVANCED RESEARCH PROJECT AGENCY (DARPA)
FOR
THERMAL AND FLIGHT TEST SUPPORT

ARTICLE 1. AUTHORITY AND PARTIES

The National Aeronautics and Space Administration Armstrong Flight Research Center, located at 4800 Lilly Avenue, Edwards, CA 93523 (hereinafter referred to as "NASA" or "NASA AFRC"), enters into this Interagency Agreement (hereinafter referred to as "IAA" or "Agreement") in accordance with 51 U.S.C. § 20113(e). Defense Advanced Research Projects Agency, Tactical Technology Office, located at 675 North Randolph Street, Arlington, VA 22203-2214 (hereinafter referred to as "DARPA" or "Partner"), enters into this IAA in accordance with the Department of Defense Directive 5134.10, "Defense Advanced Research Projects Agency." NASA and DARPA may be individually referred to as a "Party" and collectively referred to as the "Parties."

ARTICLE 2. PURPOSE

The purpose of this Interagency Agreement ("IAA") is for NASA AFRC and DARPA to define and conduct thermal testing of a DARPA test article and support the flight testing of two NASA Flight Loads Lab (FLL) developed Systems on two upcoming DARPA-supported sounding rocket flights in support of the DARPA Materials Architecture and Characterization for Hypersonics (MACH) Program.

ARTICLE 3. RESPONSIBILITIES

A. NASA will use reasonable efforts to:

1. Modify the Leading-Edge Irradiation Assembly (LEIA) fixture to support the DARPA test article and test conditions
2. Conduct the following ground tests:
 - i. NASA AFRC will perform at least three heating runs with a calibration probe test article of NASA's design, at 50%, 75%, at 100% design power of the LEIA fixture. NASA AFRC will perform additional calibration heating runs as necessary to evaluate the fixture performance.
 - ii. NASA AFRC will perform, at minimum, three heating runs each for two heat pipe test articles provided by DARPA, notionally at 50%, 75%, and 100% design power levels.
3. Prepare and deliver the two NASA instrumentation systems for integration on the sounding rockets.

4. Support the integration of the two NASA instrumentation systems into the sounding rockets.

B. DARPA will use reasonable efforts to:

1. Provide two leading-edge (LE) heat pipe test articles.
2. Complete the NASA AFRC test requirements documentation outlining required boundary conditions, instrumentation, and success criteria.
3. Provide arc jet test results for thermal comparison to the NASA AFRC Leading-Edge Irradiation Assembly (LEIA) fixture, including test article temperatures and estimated boundary conditions.
4. Define requirements and provide documentation, as necessary, for integrating both NASA flight experiments on the sounding rockets.
5. Work with NASA personnel to define how the two NASA experiments will be integrating into the sounding rockets.
6. Provide selected data from the sounding rocket flights that will be used to help define the flight environments for the two NASA experiments.

ARTICLE 4. SCHEDULE AND MILESTONES

The planned major milestones for the activities defined in the "Responsibilities" Article are as follows:

1) DAPRA to provide NASA 2 leading edge heat pipe test articles	Within 2 months of the execution of this agreement
2) NASA AFRC will provide DARPA a "quick-look" package of test data within three (3) business days of each calibration heating runs	Ongoing throughout the Term of the agreement
3) NASA AFRC will provide DARPA a "quick-look" package of test data within three (3) business days of each of the heat pipe heating runs	Ongoing throughout the Term of the agreement
4) NASA AFRC will provide DARPA a final report summarizing buildup of the LEIA test fixture, test data, and estimate thermal boundary conditions	Within three (3) months of the test series completion.
5) NASA will provide the instrumentation system(s) to DARPA for integration onto DAPRA sounding rocket	By the designate date to meet the sounding rocket integration schedule.

ARTICLE 5. FINANCIAL OBLIGATIONS

There will be no transfer of funds between the Parties under this Agreement, and each Party will fund its own participation. All activities under or pursuant to this Agreement are subject to the availability of funds, and no provision of this Agreement shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act (31 U.S.C. § 1341).

ARTICLE 6. PRIORITY OF USE

Any schedule or milestone in this IAA is estimated based upon the Parties' current understanding of the projected availability of its respective goods, services, facilities, or equipment. In the event that either Party's projected availability changes, NASA or DARPA, respectively, shall be given reasonable notice of that change so that the schedule and milestones may be adjusted accordingly. The Parties agree that NASA's and DARPA's use of its own goods, services, facilities, or equipment shall have priority over the use planned in this IAA.

ARTICLE 7. LIABILITY

Each Party agrees to assume liability for its own risks arising from or related to activities conducted under this IAA.

ARTICLE 8. INTELLECTUAL PROPERTY RIGHTS - DATA RIGHTS

NASA and DARPA agree that the information and data exchanged in furtherance of the activities under this IAA will be exchanged without use and disclosure restrictions unless required by national security regulations (e.g., classified information) or as otherwise provided in this IAA or agreed to by NASA and DARPA for specifically identified information or data (e.g., information or data specifically marked with a restrictive notice).

ARTICLE 9. INTELLECTUAL PROPERTY RIGHTS - HANDLING OF DATA

- A. In the performance of this Agreement, NASA or DARPA (as "Disclosing Party") may provide the other Party (as "Receiving Party") with:
 - 1. Data of third parties that the Disclosing Party has agreed to handle under protective arrangements or is required to protect under the Trade Secrets Act (18 U.S.C. § 1905) ("Third Party Proprietary Data"), or
 - 2. Government data, including software, the use and dissemination of which the Disclosing Party intends to control ("Controlled Government Data").
- B. All Third Party Proprietary Data and Controlled Government Data provided by Disclosing Party to Receiving Party shall be marked by Disclosing Party with a restrictive notice and protected by Receiving Party in accordance with this Article.
- C. Disclosing Party provides the following Data to Receiving Party. The lists below may not be comprehensive, are subject to change, and do not supersede any restrictive notice on the Data.
 - 1. Third Party Proprietary Data: The Disclosing Party's Third Party Proprietary Data, if any, will be identified in a separate technical document.

2. Controlled Government Data: The Disclosing Party's Controlled Government Data, if any, will be identified in a separate technical document.
 3. NASA software and related Data will be provided to Partner under a separate Software Usage Agreement (SUA). None
- D. For such Data identified with a restrictive notice pursuant to paragraph B of this Article, including Data identified in an accompanying funding document, Receiving Party shall:
1. Use, disclose, or reproduce such Data only as necessary under this Agreement;
 2. Safeguard such Data from unauthorized use and disclosure;
 3. Allow access to such Data only to its employees and any Related Entity requiring access under this Agreement;
 4. Except as otherwise indicated in D.3., preclude disclosure outside Receiving Party's organization;
 5. Notify its employees with access about their obligations under this Article and ensure their compliance, and notify any Related Entity with access about their obligations under this Article; and
 6. Dispose of such Data as Disclosing Party directs.
- E. If the Parties exchange Data having a notice deemed ambiguous or unauthorized by the receiving Party, it should tell the providing Party. If the notice indicates a restriction, the receiving Party must protect the Data under this Article unless otherwise directed in writing by the providing Party.
- F. Notwithstanding any restrictions provided in this Article, the Parties are not restricted in the use, disclosure, or reproduction of Data provided under this Agreement that is:
1. known or available from other sources without restriction;
 2. known, possessed, or developed independently and without reference to the Proprietary Data;
 3. made available by the owners to others without restriction; or
 4. required by law or court order to be disclosed.

If a Party believes that any exceptions apply, it shall notify the other Party before any unrestricted use, disclosure, or reproduction of the Data.

ARTICLE 10. INTELLECTUAL PROPERTY RIGHTS - INVENTION AND PATENT RIGHTS

Unless otherwise agreed upon by NASA and DARPA, custody and administration of inventions made (conceived or first actually reduced to practice) under this IAA will remain with the respective inventing Party. In the event an invention is made jointly by employees of the Parties (including by employees of a Party's contractors or subcontractors for which the U.S. Government has ownership), the Parties will consult and agree as to future actions toward the establishment of patent protection for the invention.

ARTICLE 11. RELEASE OF GENERAL INFORMATION TO THE PUBLIC AND MEDIA

NASA or DARPA may, consistent with Federal law and this Agreement, release general information regarding its own participation in this IAA as desired. Insofar as participation of the other Party in this IAA is included in a public release, NASA and DARPA will seek to consult with each other prior to any such release, consistent with the Parties' respective policies.

Pursuant to Section 841(d) of the NASA Transition Authorization Act of 2017, Public Law 115-10 (the "NTAA"), NASA is obligated to publicly disclose copies of all agreements conducted pursuant to NASA's 51 U.S.C. §20113(e) authority in a searchable format on the NASA website within 60 days after the agreement is signed by the Parties. The Parties acknowledge that, if this IAA is entered into pursuant to NASA's 51 U.S.C. §20113(e) authority, this IAA will be disclosed, without redaction, in accordance with the NTAA.

ARTICLE 12. TERM OF AGREEMENT

This IAA becomes effective upon the date of the last signature below ("Effective Date") and shall remain in effect until the completion of all obligations of both Parties hereto, or two years from the effective date, whichever comes first.

ARTICLE 13. RIGHT TO TERMINATE

Either Party may unilaterally terminate this Agreement by providing thirty (30) calendar days written notice to the other Party.

ARTICLE 14. CONTINUING OBLIGATIONS

The rights and obligations of the Parties that, by their nature, would continue beyond the expiration or termination of this Agreement, e.g., "Liability and Risk of Loss" and "Intellectual Property Rights" and related clauses shall survive such expiration or termination of this Agreement.

ARTICLE 15. POINTS OF CONTACT

The following personnel are designated as the Points of Contact between the Parties in the performance of this Agreement.

Management Points of Contact

NASA

Darren S. Cole
Flight Loads Lab Project Manager
NASA Armstrong Flight Research Center
Edwards, CA 93523
Phone: 661-209-9498 (cell)
Darren.s.cole@nasa.gov

Defense Advanced Research Projects Agency, Tactical Technology Office

Salvatore Buccellato
Program Manager
675 North Randolph Street
Arlington, VA 22203-2214
Phone: 703-526-2789
salvatore.buccellato@darpa.mil

Technical Points of Contact

NASA

Craig A. Stephens
Aerostructures Branch
NASA Armstrong Flight Research Center
P.O. Box 273 Bldg. 4820-2A
Edwards, CA. 93523
Phone: 661-276-2028
craig.a.stephens@nasa.gov

Defense Advanced Research Projects Agency, Tactical Technology Office

ARTICLE 16. DISPUTE RESOLUTION

All disputes concerning questions of fact or law arising under this IAA shall be referred by the claimant in writing to the appropriate person identified in this IAA as the "Points of Contact." The persons identified as the "Points of Contact" for NASA and DARPA will consult and attempt to resolve all issues arising from the implementation of this IAA. If they are unable to come to agreement on any issue, the dispute will be referred to the signatories to this IAA, or their designees, for joint resolution after the Parties have separately documented in writing clear reasons for the dispute. As applicable, disputes will be resolved pursuant to The Department of the Treasury's Intragovernmental Transaction Guide (Treasury Financial Manual, Vol. 1, Chapter 2, Part 4700, Appendix 10 (hereinafter, the "Intragovernmental Transaction Guide")).

ARTICLE 17. MODIFICATIONS

Any modification to this IAA shall be executed in writing and signed by an authorized representative of NASA and the DARPA.

ARTICLE 18. APPLICABLE LAW

U.S. Federal law governs this IAA for all purposes, including, but not limited to, determining the validity of the IAA, the meaning of its provisions, and the rights, obligations, and remedies of the Parties.

ARTICLE 19. LOAN OF GOVERNMENT PROPERTY

The Parties shall enter into a NASA Form 893, Loan of NASA Equipment, for NASA equipment loaned to Partner.

ARTICLE 20. INVESTIGATIONS OF MISHAPS AND CLOSE CALLS

In the case of close call, mishap or mission failure, the Parties agree to provide assistance to each other in the conduct of any investigation pertaining to either the ground-test activity being led by the NASA FLL and the flight test of two NASA instrumentation systems being led by DARPA.

ARTICLE 21. SIGNATORY AUTHORITY

Approved and authorized on behalf of each Party by:

NATIONAL AERONAUTICS AND
SPACE ADMINISTRATION
ARMSTRONG FLIGHT RESEARCH
CENTER

BY: _____
Mauricio Rivas
Acting Deputy Director for Projects
and Programs

DEFENSE ADVANCED RESEARCH
PROJECTS AGENCY,
TACTICAL TECHNOLOGY OFFICE

BUCCELLATO.SA
LVATORE.B.1016
BY: 751029
Salvatore Buccellato
Program Manager
Tactical Technology Office

Digitally signed by
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