

NONREIMBURSABLE UMBRELLA INTERAGENCY AGREEMENT  
BETWEEN  
THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
GLENN RESEARCH CENTER  
AND  
AIR FORCE RESEARCH LABORATORY  
FOR  
FREE-SPACE LASER/QUANTUM COMMUNICATION RESEARCH ACTIVITIES

ARTICLE 1. AUTHORITY AND PARTIES

The National Aeronautics and Space Administration Glenn Research Center, located at 21000 Brookpark Road, Cleveland, OH 44135 (hereinafter referred to as "NASA" or "NASA GRC") enters into this Interagency Agreement (hereinafter referred to as the "IAA," the "Umbrella IAA," or the "Agreement") in accordance with 51 U.S.C. § 20113(e). Air Force Research Laboratory, located at 525 Brooks Road, Rome, NY 13441-4515 (hereinafter referred to as "AFRL/RI"), enters into this IAA in accordance with Space Act, Other Transactions Authority (OTA), 51 U.S.C. § 20113(e). NASA and AFRL/RI may be individually referred to as a "Party" and collectively referred to as the "Parties."

ARTICLE 2. PURPOSE AND IMPLEMENTATION

This Umbrella IAA shall be for the purpose of effectuating NASA and AFRL/RI's intent to create a partnership to engage in collaborative activities towards the continued development of free-space laser/quantum communication technology.

The Parties shall execute one (1) Annex Agreement (hereinafter referred to as the "Annex") concurrently with this Umbrella IAA. The Parties may execute subsequent Annexes under this Umbrella IAA consistent with the purpose and terms of this Umbrella IAA. This Umbrella IAA shall govern all Annexes executed hereunder; no Annex shall amend this Umbrella IAA. Each Annex will detail the specific purpose of the proposed activity, responsibilities, schedule and milestones, and any goods, services, facilities or equipment to be utilized under the task. This Umbrella IAA takes precedence over any Annexes. In the event of a conflict between the Umbrella IAA and any Annex concerning the meaning of its provisions, and the rights, obligations and remedies of the Parties, the Umbrella IAA is controlling.

ARTICLE 3. RESPONSIBILITIES

1. NASA GRC will use reasonable efforts to:
  - a. Provide support of projects undertaken in any Annex;
  - b. Provide internal coordination of approvals for Annexes;

- c. Provide for a single point of contact for Annex development and operations.
2. AFRL/RI will use reasonable efforts to:
- a. Provide support of projects undertaken in any Annex;
  - b. Provide internal coordination of approvals for Annexes;
  - c. Provide for a single point of contact for Annex development and operations.

#### ARTICLE 4. SCHEDULE AND MILESTONES

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

Milestones are defined per each respective Annex.

The Parties will execute one (1) Annex concurrently with this Umbrella Agreement. The initial Annex and any subsequent Annexes will be performed on the schedule and in accordance with the milestones set forth in each respective Annex.

#### 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 AFRL/RI, 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 AFRL/RI's use of its own goods, services, facilities, or equipment shall have priority over the use planned in this IAA.

#### ARTICLE 7. LIABILITY AND RISK OF LOSS

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 AFRL/RI 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 AFRL/RI for specifically identified information or data (e.g., information or data specifically marked with a restrictive notice).

#### ARTICLE 9. INTELLECTUAL PROPERTY RIGHTS - INVENTION AND PATENT RIGHTS

Unless otherwise agreed upon by NASA and AFRL/RI, 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 establishment of patent protection for the invention.

#### ARTICLE 10. INTELLECTUAL PROPERTY RIGHTS - HANDLING OF DATA

1. In the performance of this Agreement, NASA or AFRL/RI (as "Disclosing Party") may provide the other Party (as "Receiving Party") with:
  - a. 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
  - b. Government data, including software, the use and dissemination of which, the Disclosing Party intends to control ("Controlled Government Data").
2. 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.
3. Identification of Data:
  - a. Third Party Proprietary Data and Controlled Government Data shall be identified in the Annex under which it will be provided.
  - b. NASA software and related Data shall be identified in the Annex under which it will be used and provided under a separate Software Usage Agreement (SUA). AFRL/RI shall use and protect the related data in accordance with this clause.
4. For Data with a restrictive notice and Data identified in this Agreement or an accompanying funding document, Receiving Party shall:
  - a. Use, disclose, or reproduce the Data only as necessary under this Agreement;

- b. Safeguard the Data from unauthorized use and disclosure;
  - c. Allow access to the Data only to its employees and any related entity requiring access under this Agreement;
  - d. Except, as otherwise indicated in D.3., preclude disclosure outside Receiving Party's organization;
  - e. 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
  - f. Dispose of the Data as Disclosing Party directs.
5. 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.
6. 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:
- a. Known or available from other sources without restriction;
  - b. Known, possessed, or developed independently, and without reference to the Proprietary Data;
  - c. Made available by the owners to others without restriction; or
  - d. 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 11. RELEASE OF GENERAL INFORMATION TO THE PUBLIC AND MEDIA

NASA or AFRL/RI 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 AFRL/RI 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 five (5) years from the effective date, whichever comes first.

#### ARTICLE 13. RIGHT TO TERMINATE

Either Party may unilaterally terminate this Umbrella IAA or any Annex(es) by providing thirty (30) calendar days written notice to the other Party. Termination of an Annex does not terminate this Umbrella Agreement. However, the termination or expiration of this Umbrella IAA also constitutes the termination of all outstanding Annexes.

#### 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 IAA. Annexes may designate Points of Contact for purposes of the Annex activities.

##### Management Points of Contact

NASA  
 Timothy P. McCartney  
 Director of Aeronautics  
 Mail Stop: B3  
 21000 Brookpark Road  
 Cleveland, OH 44135  
 Phone: 216.433.5669  
 timothy.p.mccartney@nasa.gov

Air Force Research Laboratory  
 Robert J. DiMeo  
 Program Manager  
 525 Brooks Road  
 Rome, NY 13441-4515  
 Phone: 315-330-2605  
 robert.dimeo@us.af.mil

##### Technical Points of Contact

NASA  
Adam Wroblewski  
Research Engineer  
Mail Suite: 77-1  
21000 Brookpark Road  
Cleveland, OH 44135  
Phone: 216-433-3816  
adam.c.wroblewski@nasa.gov

Air Force Research Laboratory  
John Malowicki  
Research Engineer  
525 Brooks Road  
Rome, NY 13441-4515  
Phone: 315-330-3634  
john.malowicki@us.af.mil

#### 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 for purposes of the activities undertaken in the IAA, or Annex(es) for purposes of the activities undertaken in the Annex(es), as the "Points of Contact." The persons identified as the "Points of Contact" for NASA and the AFRL/RI will consult and attempt to resolve all issues arising from the implementation of this Agreement. If they are unable to come to agreement on any issue, the dispute will be referred to the signatories to the IAA, or Annex, as appropriate, 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).

#### ARTICLE 17. MODIFICATIONS

Any modification to this IAA shall be executed, in writing, and signed by an authorized representative of NASA and the AFRL/RI. Accompanying Annexes may be modified under the same terms. Modification of an Annex does not modify the Umbrella Agreement.

#### 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 any NASA equipment loaned to AFRL/RI.

#### ARTICLE 20. ELECTRONIC SIGNATURES

The parties acknowledge and agree that this Agreement may be executed by electronic signature, which shall be considered as an original signature for all purposes and shall have the same force and effect as an original signature. An "electronic signature" shall include, but is not limited to, faxed versions of an original signature or electronically signed or scanned and transmitted versions (e.g., via pdf) of an original signature.

ARTICLE 21. SIGNATORY AUTHORITY

Approved and authorized on behalf of each Party by:

NATIONAL AERONAUTICS AND  
SPACE ADMINISTRATION  
GLENN RESEARCH CENTER

AIR FORCE RESEARCH LABORATORY

BY: \_\_\_\_\_  
MARLA E. PEREZ-DAVIS, Ph.D.  
Center Director

BY: \_\_\_\_\_  
TIMOTHY J. LAWRENCE Colonel, USAF  
Director, Information Directorate  
Commander, AFRL/Detachment 4  
Air Force Research Laboratory

DATE: \_\_\_\_\_

DATE: \_\_\_\_\_