NONREIMBURSABLE UMBRELLA INTERAGENCY AGREEMENT BETWEEN

THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION AND FEDERAL AVIATION ADMINISTRATION FOR DEMONSTRATION OF PROMISING AVIATION CONCEPTS AND TECHNOLOGY

ARTICLE 1. AUTHORITY AND PARTIES

The National Aeronautics and Space Administration, located at 300 E Street SW, Washington, DC 20546 (hereinafter referred to as "NASA")" enters into this Interagency Agreement (hereinafter referred to as "IAA") in accordance with 51 U.S.C. § 20113(e). Federal Aviation Administration, located at 800 Independence Avenue, SW, Washington, DC 20553-0001(hereinafter referred to as "FAA"), enters into this IAA in accordance with the Federal Aviation Act of 1958 (49 U.S.C. 106(l) and 106 (m), NASA and FAA may be individually referred to as a "Party" and collectively referred to as the "Parties."

ARTICLE 2. SCOPE

PURPOSE:

This Umbrella IAA (hereinafter referred to as the "IAA" or "Umbrella IAA") shall be for the purpose of NASA and the FAA partnering to plan and perform research, design, development and demonstration of promising aviation concepts and technologies important to the aviation needs of the nation as outlined below.

SPECIFIC GOALS AND OBJECTIVES TO BE ACCOMPLISHED:

Recognizing the breadth of potential challenges and opportunities for transitioning research applications into practical applications, NASA and the FAA will collaborate on efforts including research, design, development and demonstration of promising aviation concepts and technologies, addressing aviation needs for the nation. NASA and FAA anticipate collaboration in the following disciplines:

1) Integrated Systems Research - Support research activities contributing capabilities that reduce technical and regulatory barriers related to challenges associated with integrating complex systems into the National Airspace System (NAS).

- 2) Advanced Aviation Systems Support research activities that explore and assess aeronautics concepts and technologies that have promise to mature to a point where they are ready for investment by a customer/beneficiary.
- 3) Airspace Systems Support research activities relating to Next Generation Air Transportation System (NextGen) and beyond, and other airspace technologies and concepts that support the NAS and its critical infrastructure. This includes, but is not limited to, enabling safe operations of emerging aviation markets, including low altitude autonomous vehicles, such as urban air mobility (UAM) markets (small autonomous Unmanned Aircraft Systems (UAS) up through passenger carrying autonomous urban air taxis); high altitude long endurance UAS; supersonic commercial transports; and, the potential reemergence of short/thin haul aviation.
- 4) Aviation Safety Support research activities such as potential hazard identification, risk mitigation, data analysis, simulations, and technologies that reduce technical, regulatory, operational, and process barriers to aviation safety.
- 5) Special Projects Upon mutual agreement, the FAA and NASA may collaborate in performing special tasks, such as independent studies, technical evaluations and other tasks needed to assist in achieving national aviation/aeronautical objectives.

ROLES AND RESPONSIBILITIES:

NASA will use reasonable efforts to:

- 1) Provide support of projects undertaken in any Annex;
- 2) Provide internal coordination of approvals for Annexes;
- 3) Provide for a single point of contact for Annex development and operations.

FAA will use reasonable efforts to:

- 1) Provide support of projects undertaken in any Annex;
- 2) Provide internal coordination of approvals for Annexes;
- 3) Provide for a single point of contact for Annex development and operations.

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. SCHEDULE AND MILESTONES

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 4. 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 5. 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 FAA, 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 FAA's use of its own goods, services, facilities, or equipment shall have priority over the use planned in this IAA.

ARTICLE 6. 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 7. INTELLECTUAL PROPERTY RIGHTS - DATA RIGHTS

NASA and FAA 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 other Federal Agency for specifically identified information or data (e.g., information or data specifically marked with a restrictive notice).

ARTICLE 8. INTELLECTUAL PROPERTY RIGHTS – HANDLING OF DATA

A. In the performance of this Agreement, NASA or FAA (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") (For purposes of this Article 8, Third Party Proprietary Data and Controlled Government Data may collectively be referred to herein as "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. Identification of Data:

- 1. Third Party Proprietary Data and Controlled Government Data shall be identified in the Annex under which it will be provided.
- 2. 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). FAA shall use and protect the related data in accordance with this clause.
- 3. FAA software and related Data shall be identified in the Annex under which it will be used, and may be provided under a separate Software Usage Agreement (SUA), as applicable. NASA shall use and protect the related data in accordance with this clause.
- D. For such Data identified with a restrictive notice pursuant to paragraph B of this Article, including Data identified in an accompanying funding document ("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 Disclosing Party and the Parties shall enter into good faith discussions to resolve the ambiguity and/or authority issue(s). Except to the extent that a restriction is inconsistent with this Agreement or applicable law, if the notice indicates a restriction, the Receiving Party must protect the Data under this Article unless otherwise directed in writing by the Disclosing 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 9. <u>INTELLECTUAL PROPERTY RIGHTS - INVENTION AND PATENT</u> <u>RIGHTS</u>

Unless otherwise agreed upon by NASA and FAA, 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 an 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. RELEASE OF GENERAL INFORMATION TO THE PUBLIC AND MEDIA

NASA or FAA 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 FAA will seek to consult with each other via their respective Administrative points of contact in Article 14 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 in accordance with the NTAA.

ARTICLE 11. 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 years from the effective date, whichever comes first.

ARTICLE 12. RIGHT TO TERMINATE

Either Party may unilaterally terminate this Umbrella IAA or any Annex(es), with or without cause, 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 13. 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 14. 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	Federal Aviation Administration
Ed Waggoner	Steve Bradford
Deputy AA for Programs	Chief Scientist for NextGen (ANG-3)
300 E Street SW	800 Independence Avenue, SW
Washington, DC 20546	Washington, DC 20553-0001
Phone: 202-358-0597	Phone: (202) 267-1218
edgar.g.waggoner@nasa.gov	steve.bradford@faa.gov

Administrative Points of Contract:

NASA

Irma Rodriguez (Agreement Manager)
Partnership Coordination Lead, ARMD
300 E Street, SW
Washington, DC 20546
(202) 358-0984

irma.c.rodriguez@nasa.gov

Federal Aviation Administration

John Raper (or assigned COR) Program Manager, ANG-A17 800 Independence Avenue, SW Washington, DC 20553-0001

Phone: (202) 267-4401

john.raper@faa.gov

Federal Aviation Administration

Linwood Gillette Contracting Officer, AAQ-330 800 Independence Avenue, SW Washington, DC 20553-0001

Phone: (202) 267-5103 linwood.gillette@faa.gov

ARTICLE 15. 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 FAA 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 (hereinafter, the "Intragovernmental Transaction Guide")).

ARTICLE 16. MODIFICATIONS

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

ARTICLE 17. 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 18. LOAN OF GOVERNMENT PROPERTY

The parties shall enter into a NASA Form 893, Loan of NASA Equipment, for NASA equipment loaned to Partner, with the form to be completed in a manner acceptable to both parties. The FAA may, in lieu of the use of an FAA Form for equipment loans by the FAA to NASA, identify the equipment and any terms of use in its annexes.

ARTICLE 19. SIGNATORY AUTHORITY

Approved and authorized on behalf of each Party by:

NATIONAL AERONAUTICS AND SPACE	FEDERAL AVIATION ADMINISTRATION
ADMINISTRATION	
ROBERT Digitally signed by ROBERT PEARCE	DocuSigned by:
BY: PEARCE Date: 2020.12.16 14:19:32 -05'00'	BY:
Robert Pearce	Pamela Whitley
Associate Administrator for Aeronautics	Acting Assistant Administrator for NextGen
Mission Directorate	FAA
NASA	
DATE:	DATE: