

ANNEX NO. 2
UNDER
SPACE ACT UMBRELLA AGREEMENT SAA1-36330
BETWEEN
THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
LANGLEY RESEARCH CENTER
AND
UNIVERSITY OF ARIZONA APPLIED RESEARCH CORPORATION
FOR
SPACE MIRROR APERTURE ASSEMBLY INTEGRATED HARDWARE TESTING

ARTICLE 1. PURPOSE

This Annex shall be for the purpose of collaboration between NASA Langley Research Center (LaRC) and the University of Arizona Applied Research Corporation (UA-ARC) to perform an integrated hardware test of the space mirror aperture assembly with the UA-ARC thin meniscus mirrors mated to the NASA LaRC TriTruss backbone structures. This Annex builds upon the efforts completed under Annex 1.

The legal authority for this Annex, consistent with the Umbrella Agreement, is in accordance with the Space Act, Other Transactions Authority (OTA), 51 U.S.C. § 20113(e).

ARTICLE 2. RESPONSIBILITIES

A. NASA LaRC will use reasonable efforts to:

1. Design and fabricate three (3) TriTruss modules for attachment to the UA-ARC thin meniscus mirror segments.
2. Deliver the TriTruss modules to UA-ARC for assembly and testing.

B. Partner will use reasonable efforts to:

1. Fabricate thin meniscus mirror segments and required TriTruss module interfaces.
2. Assemble and conduct integrated hardware testing of the space mirror aperture assembly with the UA-ARC thin meniscus mirrors mated to the NASA LaRC TriTruss modules.
3. Provide test data to NASA LaRC and any feedback on further design improvements.

ARTICLE 3. SCHEDULE AND MILESTONES

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

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|-------------------------------|-------------------------|
| 1. Authority to Proceed (ATP) | Effective Date of Annex |
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- | | |
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| 2. NASA LaRC to design, fabricate, and deliver Tri-Truss modules to UA-ARC | Within three (3) months following Milestone 1 |
| 3. UA-ARC to fabricate thin meniscus mirror segment and required TriTruss module interface, and perform first mirror test and provide test data to NASA LaRC | Within five (5) months following Milestone 2 |
| 4. UA-ARC to fabricate multiple thin meniscus mirror segments and required TriTruss module interfaces. UA-ARC to precision assemble these units with TriTruss modules to perform multi-mirror test and provide test data to NASA LaRC | Within three (3) months following Milestone 3 |

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. INTELLECTUAL PROPERTY RIGHTS - DATA RIGHTS

A. Data produced under this Annex which is subject to paragraph C. of the Intellectual Property Rights - Data Rights Article of the Umbrella Agreement will be protected for the period of one year.

B. Under paragraph H. of the Intellectual Property Rights - Data Rights Article of the Umbrella Agreement, 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 provided.

1. Background Data:
The Disclosing Party's Background Data, if any, will be identified in a separate technical document.
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.
4. The following software and related Data will be provided to Partner under a separate Software Usage Agreement:
None

ARTICLE 6. TERM OF ANNEX

This Annex 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 one year from the Effective Date, whichever comes first, unless such term exceeds the duration of the Umbrella Agreement. The term of this Annex shall not exceed the term of the Umbrella Agreement. The Annex automatically expires upon the expiration of the Umbrella Agreement.

ARTICLE 7. RIGHT TO TERMINATE

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

ARTICLE 8. POINTS OF CONTACT

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

Management Points of Contact

NASA Langley Research Center
Laurie Roberts
Agreements Lead, Space Technology and
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University of Arizona Applied Research
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Technical Points of Contact

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University of Arizona College of Optical
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ARTICLE 9. MODIFICATIONS

Any modification to this Annex shall be executed, in writing, and signed by an authorized representative of NASA and the Partner. Modification of an Annex does not modify the terms of the Umbrella Agreement.

ARTICLE 10. SIGNATORY AUTHORITY

The signatories to this Annex covenant and warrant that they have authority to execute this Annex. By signing below, the undersigned agrees to the above terms and conditions.

NATIONAL AERONAUTICS AND
SPACE ADMINISTRATION
LANGLEY RESEARCH CENTER

UNIVERSITY OF ARIZONA APPLIED
RESEARCH CORPORATION

BY: _____
David A. Dress
Director, Space Technology and
Exploration Directorate

BY: _____
Lloyd Brown
Contract Support

DATE: _____

DATE: 04072023