

ANNEX
BETWEEN
THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION AND
AXIOM SPACE, Inc.
UNDER SPACE ACT UMBRELLA AGREEMENT
NO. 36162, DATED 4/6/2022 (ANNEX NUMBER 6).

ARTICLE 1. PURPOSE

This Agreement shall be for the purpose of allowing Axiom Space, Inc. ("Axiom") to access NASA WSTF's expertise and capabilities for hydrogen hazards analysis, oxygen compatibility assessments per NASA-STD-2007-213740 Guide for Oxygen Compatibility Assessments on Oxygen Components and Systems / NASA-STD-6001 Flammability, Offgassing, and Compatibility Requirements and Test Procedures and related consensus methodology and standard testing (such as NASA-STD-6016 or TP-WSTF-629 Navy Submarine Atmosphere Material Control Protocol). Future tests may include flammability, toxicity, odor, and thermal vacuum stability, but this annex allows partner to access all materials, component and assembly testing and analysis capabilities performed at WSTF.

WSTF's Oxygen and Hydrogen core capabilities have evaluated materials for spacecraft safety for more than 30 years maintaining vast hazard evaluation experience. NASA WSTF possesses unique testing facilities, unique custom analysis and interpretation capabilities, as well as unique NASA Materials and Processes (M&P) certification. WSTF is the only oxygen, propellant, and NASA-STD-6001 materials and component test facility within NASA and is not available in the commercial marketplace.

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

NASA will use reasonable efforts to:

1. Perform at least five (5) Oxygen Compatibility Assessments (OCA)s on Axiom Propulsion and Environmental Control and Life Support (ECLSS) systems during the first fiscal year of the agreement and at least two (2) each subsequent fiscal year of the Agreement.
2. Review OCAs performed by Partner and provide technical input where reasonably necessary and appropriate.
3. Perform testing as recommended in OCA review and as requested by Axiom.

4. Perform at least two Hydrogen Hazard Analyses on Axiom Propulsion and ECLSS system over the course of the Agreement.

5. Provide test data and written final report for all tests conducted by WSTF.

Axiom will use reasonable efforts to:

1. Provide the following oxygen system details for OCAs performed by NASA/WSTF:

a) Background information – What will the system be used for?

b) System schematic and corresponding component list (Bill of Materials, BOM)

c) Nominal line velocities in the system

d) Component information (needed for each component):

(i) Manufacturer/Model

(ii) Cut-sheet which shows the flow path

(iii) Materials for all parts wetted with O₂

e) Environment information:

(i) Maximum pressure

(ii) Maximum oxygen concentration

(iii) Maximum temperature

(iv) Cleanliness spec-

(v) Particulate/Non-volatile Residue, NVR level

f) History of use

g) High-level operating procedures

2. Provide Axiom OCAs for NASA/WSTF review.

3. At the time of test request, provide Statements of Work for any testing to be performed by WSTF.

4. Provide test articles to NASA/WSTF for testing with any request for testing, final disposition of such test articles after testing to be in accordance with the scope defined on each such request.

5. Provide hydrogen system details for Hydrogen Hazard Analyses performed by NASA/WSTF.

ARTICLE 3. SCHEDULE AND MILESTONES

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

Perform OCAs on Axiom Propulsion and ECLSS systems and components.	As requested by Axiom
Review and provide feedback on Axiom generated Propulsion System OCA(s)	3 weeks after receipt of document(s)
Perform oxygen compatibility testing and acceptance testing of propulsion system and ECLSS components	As requested by Axiom
Perform Hydrogen Hazard Analyses on Axiom Propulsion and ECLSS Systems	As requested by Axiom

ARTICLE 4. FINANCIAL OBLIGATIONS

A. Axiom agrees to reimburse NASA an estimated cost of \$1,035,531.19 for NASA to carry out its responsibilities under this Annex. Payments to be remitted by Axiom as work is requested.

Each payment shall be marked with SAA-RA-22-36162 Annex 6.

B. NASA will not provide services or incur costs beyond the current funding. Although NASA has made a good faith effort to accurately estimate its costs, it is understood that NASA provides no assurance that the proposed effort under this Annex will be accomplished for the estimated amount. Should the effort cost more than the estimate, Axiom will be advised by NASA as soon as possible. Axiom shall pay all costs incurred and have the option of canceling the remaining effort, or providing additional funding in order to continue the proposed effort under the revised estimate. Should this Annex be terminated, or the effort completed at a cost less than the agreed-to estimated cost, NASA shall account for any unspent funds within one year after completion of all effort under this Annex, and promptly thereafter, at Axiom's option return any unspent funds to Axiom or apply any such unspent funds to other activities under the Umbrella Agreement. Return of unspent funds will be processed via Electronic Funds Transfer (EFT) in accordance with 31 C.F.R. Part 208 and, upon request by NASA, Axiom agrees to complete the Automated Clearing House (ACH) Vendor/Miscellaneous Payment Enrollment Form (SF 3881).

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 two years.

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.

Background Data:

1. The Disclosing Party's Background Data, if any, will be identified by the Disclosing party at or before disclosure in a separate technical document.
2. Third Party Proprietary Data:
3. The Disclosing Party's Third Party Proprietary Data, if any, will be identified by the Disclosing party at or before disclosure in a separate technical document.
4. Controlled Government Data:
5. The Disclosing Party's Controlled Government Data, if any, will be identified by the Disclosing party at or before disclosure in a separate technical document.
6. 4. The following software and related Data will be provided to Axiom under a separate Software Usage Agreement:
7. 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 four years 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 White Sands Test Facility

Jason Noble
Director, White Sands Test Facility
Mail Stop: RA
12600 NASA Road
Las Cruces, NM 88012
Phone: 575-524-5069

AXIOM SPACE, Inc.

Andrew Cooke
Director of Contracts
1290 Hercules Ave,
Houston, TX 77058-2769
Phone: 346-293-7045
andrew.cooke@axiomspace.com

jason.e.noble@nasa.gov

Technical Points of Contact

NASA White Sands Test Facility
Virginia Ward
Materials & Processes Engineer
Mail Suite: RF-111
12600 NASA Road
Las Cruces, NM 88012
Phone: 575-524-5459
virginia.j.ward@nasa.gov

AXIOM SPACE, Inc.
Penny Gardner
Group Lead, M&P Engineer, Specialty
Engineering
1290 Hercules Ave,
Houston, TX 77058-2769
Phone: 346-293-7045
penny@axiomspace.com

ARTICLE 9. MODIFICATIONS

Any modification to this Annex shall be executed, in writing, and signed by an authorized representative of NASA and the Axiom. 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
WHITE SANDS TEST FACILITY

AXIOM SPACE, Inc.

By: _____
Jason E. Noble
Director, White Sands Test Facility

DocuSigned by:

By: _____
ECCA199370D9435...
Michael T. Suffredini
President & CEO

Date: _____

Date: February 29, 2024
