

ANNEX  
BETWEEN  
THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION AND  
RELATIVITY SPACE, INC.  
UNDER SPACE ACT UMBRELLA AGREEMENT  
NO. 39845, ANNEX NUMBER 1.

ARTICLE 1. PURPOSE

This Annex shall be for the purpose of providing the "Fire Hazards in Oxygen Systems" course and "Composite Overwrapped Pressure Vessel Damage Detection Course" (COPV DDC) and providing in accordance with NASA-STD-6001 Flammability, Offgassing, and Compatibility Requirements and Test Procedures and related consensus methodology standard testing.

The "Fire Hazards in Oxygen Systems" course provides specific knowledge regarding the fire hazards associated with oxygen, material evaluation and selection for use in oxygen-enriched environments, assessment of ignition mechanisms for components and systems, and evaluation of consequences of ignition. Although general topic courses may be commercially available, courses provided by NASA/WSTF cover more in-depth material with unique emphasis on flight and sensitive / reactive system applications. Customers developing or applying hardware to space flight or other sensitive and potentially catastrophic applications may require unique flight application specific training, as well as NASA training certification not available in the commercial marketplace.

The "Composite Overwrapped Pressure Vessel (COPV) Damage Detection" course (COPV DDC) is a specialized course approved by NASA Materials & Processes (M&P), NASA Engineering Safety Center (NESC), NASA Safety & Mission Assurance (S&MA), and Range Safety and designed to meet accepted industry standards. The COPV DDC is a unique capability since NASA's White Sands Test Facility (WSTF) developed the data generated for the DDC. WSTF applies state-of-the-art nondestructive evaluation (NDE) and evaluates the results. WSTF designed and built the test facilities used in the production of the data and aids in the evaluation and implications of the results. Students of the DDC learn to detect visual damage on aerospace and commercial COPVs through lecture and hands-on-training. This collection of various flight-rated and commercial COPVs exist only at WSTF. COPV requirements prompting the DDC are levied in AIAA-S-081 Space Systems – Composite Overwrapped Pressure Vessels (COPVs), KNPR 8715.3 Kennedy NASA Procedural Requirements and AFSPACEMAN 91-710 Range Safety User Requirements Manual Volume 3 –Launch Vehicles, Payloads, and Ground Support Systems. NASA/WSTF provides this training, which is not available in the commercial marketplace.

WSTF's Oxygen and Standard Testing core capability has evaluated materials and systems 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 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 NASA-STD-6001 testing on materials and components as requested by Relativity Space.
2. Provide test data and final reports.
3. Coordinate with Relativity Space to determine the dates, schedule, location and method in which classes will be delivered. Class attendance will be limited to 20 students per training session for COPV DDC.
4. Provide course materials and coordinate shipping of training materials (course books, and inspection articles) to the training facility.
5. Provide Certificates of Completion for the COPV DDC course to Partner POC for all students who meet the qualifications for course completion after course completion.
6. Enter all names of students who received Certificates of Completion for COPV DDC course into the WSTF COPV DDC database.
7. Provide "Fire Hazards in Oxygen Systems" training to Relativity Space personnel.
8. Provide "COPV DDC" training to Relativity Space personnel.

The Partner will use reasonable efforts to:

1. Provide materials and components for NASA-STD-6001 testing by NASA.
2. Submit requests for training to NASA WSTF and provide funds no later than 4 weeks before the start of scheduled training date.

3. Coordinate with WSTF to determine the dates, schedule and location of the training classes.
4. Provide training facilities that meet WSTF's requirements to be able to conduct training. This includes tables, chairs and audio/video (A/V) equipment for presentations (in the form of PowerPoint). Adequate visual inspection lighting (50 candle watt (CW)) will also be needed at the training facility/location.
5. For COPV DDC The training location will need to be secured one-half day before training dates and for the evening after the last day to allow for course preparation (unpacking and packing) of training material.
6. Training facility shall be secured in such a way that training material may be left unattended after initial set-up and until course material pack-up.
7. Return/ship all COPV DDC inspection articles to WSTF within one week after course completion.
8. Identify and manage attending students for the training.

### ARTICLE 3. SCHEDULE AND MILESTONES

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

NASA will provide "Fire Hazards in Oxygen Systems" and COPV DDC training to Relativity Space personnel.	As requested by Relativity Space
NASA will ship "Fire Hazards in Oxygen Systems" and COPV DDC course materials and COPV DDC inspection articles to training location.	1 week before training start date
NASA will perform NASA-STD-6001 testing on materials and components and provide test data and reports.	As requested by Relativity Space
NASA will provide Certificates of Completion for the COPV DDC course to Relativity Space POC for all students who meet the qualifications for course completion after course completion.	After course is completed
Relativity Space will coordinate with NASA to plan location and dates for "Fire Hazards in Oxygen Systems" and COPV DDC training.	6 weeks before training start date

Relativity Space will provide funds to NASA for ""Fire Hazards in Oxygen Systems" and COPV DDC training.	4 weeks before training start date
Relativity Space will provide materials and components for NASA-STD-6001 testing.	As needed by Relativity Space

ARTICLE 4. FINANCIAL OBLIGATIONS

A. Partner agrees to reimburse NASA an estimated cost of \$613,017.71 for NASA to carry out its responsibilities under this Annex. Partner will pay as training is requested, as described in Responsibilities and Schedule and Milestones.

Each payment shall be marked with SAA-RA-23-29846-01.

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, Partner will be advised by NASA as soon as possible. Partner 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 Partner's option return any unspent funds to Partner 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, Partner 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.

1. Background Data:

The Disclosing Party's Background Data, if any, will be identified in a separate technical document.

2. Third Party Proprietary Data:

The Disclosing Party's Third Party Proprietary Data, if any, will be identified in a separate technical document.

3. 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 five 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: RA111  
12600 NASA Road  
Las Cruces, NM 88012  
Phone: 575-524-5069  
jason.e.noble@nasa.gov

Relativity Space, Inc.  
Matthew Strasberg  
Director, Materials and Processes  
2400 E. Wardlow Rd  
Long Beach, CA 90807-5310  
Phone: 562-625-2020  
mstrasberg@relativityspace.com

Technical Points of Contact

NASA White Sands Test Facility  
Jonathan Tylka  
Flight Systems Test Engineer

Relativity Space, Inc.  
Alex Schwanz  
Staff Materials and Processes Engineer

Mail Suite: RF111  
12600 NASA Road  
Las Cruces, NM 88012  
Phone: 575-524-5762  
jonathan.m.tylka@nasa.gov

2400 E. Wardlow Rd  
Long Beach, CA 90807-5310  
Phone: 562-581-3287  
aschwanz@relativityspace.com

**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.

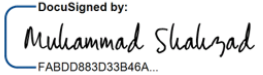
**ARTICLE 10. SIGNATORY AUTHORITY**

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  
WHITE SANDS TEST FACILITY

RELATIVITY SPACE, INC.

BY: \_\_\_\_\_  
Jason E. Noble  
Director, White Sands Test Facility

BY:  \_\_\_\_\_  
Muhammad Shahzad  
President and Chief Financial Officer

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

DATE: 7/8/2024