

ANNEX  
BETWEEN  
THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
GEORGE C. MARSHALL SPACE FLIGHT CENTER  
AND SIERRA SPACE CORP.  
UNDER SPACE ACT UMBRELLA AGREEMENT  
NO. SAA8-2236912, DATED 8/14/2022 SAA8-2236912.2

ARTICLE 1. PURPOSE

This Annex shall be for the purpose of providing unique NASA capabilities and subject matter expertise in the conduct of full scale article burst testing for inflatable softgoods. This testing is in support of Sierra Space's efforts to develop and certify softgoods for future space habitat applications as referenced in the Statement of Work titled, Full Scale Burst Testing in Support of Sierra Space's Inflatable Softgoods Habitation Development Efforts.

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 MSFC will use reasonable efforts to:

1. Provide softgoods test article SME support.
2. Provide quality support throughout test program in accordance with JSC 67721 CERTIFICATION GUIDELINES FOR CREWED INFLATABLE SOFTGOODS.
3. Support a kickoff meeting for the testing.
4. Support biweekly tagups with Partner on burst testing program .
5. Provide template for Test Requirements Document (TRD).
6. Provide inputs/feedback on TRD to Partner to include quality assurance and engineering requirements to support future compliance with JSC 67721 CERTIFICATION GUIDELINES FOR CREWED INFLATABLE SOFTGOODS.
7. Provide the facilities to perform two full scale article burst tests.
8. Conduct test readiness review (TRR) for test 1.
9. Receive test article and test stand from Partner for test 1.
10. Complete test 1.
11. Provide post-test data packages (summary of results) with SME interpretation and analysis for test 1.
12. Coordinate with Partner to prepare the test article and test stand for return following completion of test 1.
13. Receive test article and test stand from Partner for test 2.
14. Conduct TRR for test 2.
15. Complete test 2.

16. Provide post-test data packages (summary of results) with SME interpretation and analysis for test 2.
17. Coordinate with Partner to prepare the test article and test stand for return following completion of test 2.

B. Sierra Space will use reasonable efforts to:

1. Conduct an initial kick-off meeting.
2. Conduct biweekly tagups with NASA MSFC on burst testing program.
3. Create a test requirements document (TRD) for the test program to include quality assurance and engineering requirements to support future compliance with JSC 67721 CERTIFICATION GUIDELINES FOR CREWED INFLATABLE SOFTGOODS.
4. Deliver the test article and test stand for test 1.
5. Support the TRR for test 1.
6. Provide engineering support during test 1.
7. Review post-test data for test 1 and determine if there are impacts to subsequent testing.
8. Ship test article and test stand (if needed) back to Sierra Space facility following completion of test 1.
9. Deliver the test article and test stand for test 2.
10. Support the TRR for test 2.
11. Provide engineering support during test 2.
12. Analyze post-test data for test 2.
13. Ship test article and test stand (if needed) back to Sierra Space facility following completion of test 2.

### ARTICLE 3. SCHEDULE AND MILESTONES

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

- |  |                          |
|--|--------------------------|
| 1. Sierra Space will conduct biweekly tagups with NASA MSFC on burst testing program                       | Biweekly                 |
| 2. Sierra Space will conduct an initial kickoff meeting  | Effective date + 1 week  |
| 3. Sierra Space will create a test requirements document (TRD) for the test program                        | Milestone 2 + 1 week     |
| 4. Sierra Space will deliver the test article and test stand for test 1                                    | Effective date + 8 weeks |
| 5. NASA MSFC will conduct the TRR for test 1   | Milestone 4 + 2 weeks    |
| 6. NASA MSFC will complete test 1  | Milestone 5 + 1 week     |
| 7. NASA MSFC will provide post-test data package (summary of results) with SME interpretation and analysis | Milestone 6 + 4 weeks    |

for test 1

- |   |                        |
|---|------------------------|
| 8. Sierra Space will review post-test data for test 1 and determine if there are impacts to subsequent testing                  | Milestone 7 + 3 weeks  |
| 9. Sierra Space will deliver test article and test stand for test 2   | Milestone 8 + 9 weeks  |
| 10. NASA MSFC will conduct TRR for test 2   | Milestone 9 + 2 weeks  |
| 11. NASA MSFC will complete test 2  | Milestone 10 + 1 week  |
| 12. NASA MSFC will provide post-test data package (summary of results) with SME interpretation and analysis for test 2          | Milestone 11 + 4 weeks |
| 13. Sierra Space will review post-test data for test 2  | Milestone 12 + 3 weeks |
| 14. Sierra Space will ship test article and test stand (if needed) back to Sierra Space facility following completion of test 2 | Milestone 11 + 6 weeks |

#### ARTICLE 4. FINANCIAL OBLIGATIONS

- A. Partner agrees to reimburse NASA an estimated cost of \$1,078,861 for NASA to carry out its responsibilities under this Annex.  
50% due at signature  
50% at completion of Milestone 6 (Test 1 completion)

Each payment shall be marked with NASA MSFC and SAA8-2236912.2.

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. LIABILITY AND RISK OF LOSS

For the responsibilities and activities conducted under this Annex, and any claims arising thereunder, the following sentence shall be added to the end of Paragraph C, Article 8 (titled "Liability") of the Umbrella Agreement:

Partner's liability for such repair and restoration shall not exceed \$25,000.

## ARTICLE 6. 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:

None

2. Third Party Proprietary Data:

None

3. Controlled Government Data:

None

4. The following software and related Data will be provided to Partner under a separate Software Usage Agreement:

None

## ARTICLE 7. 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 8. RIGHT TO TERMINATE

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

## ARTICLE 9. POINTS OF CONTACT

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

Technical Points of Contact

NASA George C. Marshall Space Flight Center  
Tracie Prater  
Project Management Support  
Marshall Space Flight Center, AL 35812  
Phone: 256-941-9539  
tracie.j.prater@nasa.gov

SIERRA SPACE CORP.  
Austin Kareiva  
Project Manager  
590 Interlocken Crescent  
Broomfield, CO 80021  
Phone: 303-999-5858  
austin.kareiva@sncorp.com

ARTICLE 10. 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 11. 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  
GEORGE C. MARSHALL SPACE  
FLIGHT CENTER

SIERRA SPACE CORP.

BY: \_\_\_\_\_  
Ginger N. Flores  
Manager, Human Exploration  
Development and Operations Office

BY: \_\_\_\_\_  
Logan Smith  
Contracting Officer

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

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