

ANNEX
BETWEEN
THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
GEORGE C. MARSHALL SPACE FLIGHT CENTER
AND
AEROJET ROCKETDYNE
UNDER SPACE ACT UMBRELLA AGREEMENT
NO. SAA8-2236864, DATED _____
SAA8-2236864.1

ARTICLE 1. PURPOSE

The purpose of this Annex is to establish a synergy with Aerojet Rocketdyne (AR) that enables growth and retention of existing domestic capabilities of Solid Propulsion Technologies by leveraging domestic resources, including technical expertise and capabilities supporting solid technology development in the areas of designs of Solid Rocket Motor (SRM) composite structures and additively manufactured structures. The results will aid in developing more effective understanding of solid propulsion design, advanced composites, and additively manufactured structures in SRM case applications and provide engineering support and training to enable retention of national expertise in Solid Propulsion Technologies.

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 will use reasonable efforts to:

1. Communicate technical information and support developmental planning through weekly meetings and phone calls.
2. Provide engineering support on-site at AR, Huntsville, AL for the purpose of understanding the design, manufacture and testing of composite and additive manufactured Solid Rocket motor components and its potential application projects such as SLS and Mars Ascent Vehicle (MAV).
3. Provide subject matter expertise independent review in Solid Propulsion as part of requested technical reviews, such as Preliminary Design Reviews/Critical Design Reviews.
4. Provide summary report detailing engineering support and accomplishments.

B. AR will use reasonable efforts to:

1. Conduct kick-off meeting for activity.
2. Provide subject matter expertise in composite and additive manufacturing as it applies to in-house projects such as SLS and MAV and provide independent review.

3. Provide in-house at MSFC engineering support and expertise in solid motor materials testing and analysis as well as for the purpose of developing understanding of the NASA MSFC capabilities including but not limited to Solid and Hybrid Propulsion Simulant Lab (SHyPS) and the NASA MSFC Solid Fuel Torch test facility.
4. Provide summary report detailing engineering support and accomplishments.

ARTICLE 3. SCHEDULE AND MILESTONES

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

- | | |
|--|--------------------------|
| 1. NASA MSFC to attend Kickoff meeting at AR Facility | Effective date + 30 days |
| 2. AR personnel to provide onsite engineering at NASA MSFC | Milestone 1 + 60 days |
| 3. AR provide summary report of engineering accomplishments | Milestone 2 + 120 days |
| 4. NASA MSFC personnel to provide onsite engineering support at AR | Milestone 1 + 30 days |
| 5. NASA MSFC provide summary report of engineering accomplishments | Milestone 4 + 120 days |

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 2 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.

None

2. Third Party Proprietary Data:

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

None

3. Controlled Government Data:

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

None

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.

Technical Points of Contact

NASA George C. Marshall Space Flight Center

Yvonne Villegas-Aguilera

Branch Chief

Mail Suite: ER62

Marshall Space Flight Center, AL 35812

Phone: (256) 724-2510

yvonne.c.villegas-aguilera@nasa.gov

Aerojet Rocketdyne

Defense Business Unit

Terry Dillard

Business Development

950 Explorer Blvd

Huntsville, AL 358062808

Phone: (256) 922-6176

Terry.Dillard@Rocket.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
GEORGE C. MARSHALL SPACE
FLIGHT CENTER

AEROJET ROCKETDYNE
DEFENSE BUSINESS UNIT

BY: _____
Mary E. Koelbl
Director Engineering Directorate

BY: _____
Don Poole
Director Contracts Administration

DATE: _____

DATE: _____