

ANNEX
BETWEEN
THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
GODDARD SPACE FLIGHT CENTER
AND UNITED LAUNCH ALLIANCE, LLC
UNDER SPACE ACT UMBRELLA AGREEMENT
NO. 34019 / AMENDMENT ONE NO. 36702
(ANNEX NUMBER 16).

ARTICLE 1. PURPOSE

This Annex shall be for the purpose of providing NASA Space Communication and Navigation (SCaN) services to United Launch Alliance (ULA) for the Vulcan/USSF-106 Mission.

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 GSFC will use reasonable efforts to:

1. Provide Space Relay (SR) return services to ULA for the mission launch vehicle.
2. Provide NASCOM Services required to deliver SCaN Services to ULA.
3. Provide Flight Dynamic Facility services, which are an integral part of SCaN services, including providing acquisition data for Tracking Data Relay Satellite System to point to the launch vehicle in real-time.
4. Provide support listed below to ULA as requested and according to the signed mission documentation;
 - a. Review ULA's mission documentation, mission specifications, radio frequency plans, and Vehicle Information Memoranda;
 - b. Attend meetings and reviews to plan for support, as requested and paid for by ULA;
 - c. Conduct network simulations and mission readiness verification activities to assure successful delivery of data to ULA;
 - d. Maintain, through the various NASA field installations, and necessary support interfaces with ULA;
 - e. Submit to ULA a mission close out letter.
 - f. If additional funding is required, NASA will send an invoice; this includes all subsequent flights;
 - g. Document the interface between ULA and NASA for the transmission of ULA telemetry via SCaN; and
 - h. Provide return services during the launch vehicle mission.
 - i. Conduct RF Compatibility Testing if required and end-to-end testing as needed with the ULA Telecom system as provided by the customer.

j. NASA will be available to support up to three consecutive launch days in the event of launch slips, no greater than 12 hours per day. After one down day, NASA will be available to resume support for three consecutive days provided there are no other NASA commitments.

B. ULA will use reasonable efforts to:

1. Participates in reviews of NASA mission documentation, identifying the SCaN and ancillary services required and the requested schedules. The partner will provide both long-range launch projections for any activities anticipated within the scope of this Annex, including, to the extent possible, the anticipated support requirements of the mission.
2. Provide NASA with a written, detailed requirements document.
3. Provide NASA with the launch vehicle transmitter hardware and associated operations support and equipment to conduct a SR compatibility test.
4. Provide NASA with antenna/transmitter information for Radio Frequency Interface Control Document updates, as changes are identified.
5. Reimburse NASA for all services NASA is providing pursuant to this agreement;
6. Assure the compatibility of the launch vehicle radio frequency interface with SCaN via an RF Compatibility and end-to-end test conducted by NASA with the ULA Telecom system; and
7. Prepare and submit NASA required documentation in accordance with NASA policy and procedures.
8. Securing Frequency Authorization for day-of-launch operations managed by the United States Air Force (USAF).

ARTICLE 3. SCHEDULE AND MILESTONES

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

- 1, Provide NASA services as described in roles and responsibilities from the effective date of this annex and completed No Later Than (NLT) November 30, 2024.

ARTICLE 4. FINANCIAL OBLIGATIONS

A. Partner agrees to reimburse NASA an estimated cost of \$409,581 for NASA to carry out its responsibilities under this Annex.

Each payment shall be marked with Goddard Space Flight Center and Annex number 40071.

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 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 Goddard Space Flight Center
Lindsai R. Bland
Acting Network Director Launch Vehicle
& Robotics
8800 Greenbelt Road
Greenbelt, Maryland 20771
Phone: 301) 665-0455
Lindsai.R.Bland@nasa.gov

UNITED LAUNCH ALLIANCE, LLC
Jack W. Smith
ULA Contract Administrator Cape
Canaveral Space Force Station
9100 East Mineral Circle
Centennial, CO 80112-3401
Phone: (321) 730-0504
jack.w.smith@ulalaunch.com

Technical Points of Contact

NASA Goddard Space Flight Center
Matthew Vincent
Mission Manager
Mail Suite: 457.0
8800 Greenbelt Road
Greenbelt, Maryland 20771
Phone: 301.286.9338
matthew.vincent@nasa.gov

UNITED LAUNCH ALLIANCE, LLC
Mitchell Drew
Flight Operations
9100 East Mineral Circle
Centennial, CO 80112-3401
mitchell.e.drew@ulalaunch.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
GODDARD SPACE FLIGHT CENTER

UNITED LAUNCH ALLIANCE, LLC

BY: _____
Kevin M. Coggins
Deputy Associate Administrator for
Space Communications and Navigation
(SCaN) Human Exploration and
Operations Mission Directorate

BY: _____
Todd R. Pankuch
Launch Operation Lead

DATE: _____

DATE: _____