

REIMBURSABLE SPACE ACT UMBRELLA AGREEMENT  
BETWEEN  
THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
JOHN F. KENNEDY SPACE CENTER  
AND  
UNIVERSITY OF DAYTON RESEARCH INSTITUTE  
FOR  
USE OF KENNEDY SPACE CENTER CAPABILITIES

**ARTICLE 1. AUTHORITY AND PARTIES**

In accordance with the National Aeronautics and Space Act (51 U.S.C. § 20113(e)), this Agreement is entered into by the National Aeronautics and Space Administration John F. Kennedy Space Center, located at Kennedy Space Center, FL 32899 (hereinafter referred to as "NASA" or "NASA KSC") and University of Dayton Research Institute located at 300 College Park, Dayton, OH 45469-0002 (hereinafter referred to as "Partner" or "UDRI"). NASA and Partner may be individually referred to as a "Party" and collectively referred to as the "Parties."

**ARTICLE 2. PURPOSE AND IMPLEMENTATION**

This Umbrella Agreement (hereinafter referred to as the "Agreement" or "Umbrella Agreement") shall be for the purpose of providing Partner with NASA KSC services in support of Partner's activities at NASA KSC when NASA KSC has determined that consistent with National Space Policy, providing such services will not preclude, discourage, or compete with United States commercial providers. NASA KSC will make services available to Partner on an "as available, noninterference" basis with NASA requirements and previous NASA commitments or launch operations.

The Parties shall execute one (1) Annex Agreement (hereinafter referred to as the "Annex") concurrently with this Umbrella Agreement. The Parties may execute subsequent Annexes under this Umbrella Agreement consistent with the purpose and terms of this Umbrella Agreement. This Umbrella Agreement shall govern all Annexes executed hereunder; no Annex shall amend this Umbrella Agreement. Each Annex will detail the specific purpose of the proposed activity, responsibilities, schedule and milestones, and any personnel, property or facilities to be utilized under the task. This Umbrella Agreement takes precedence over any Annexes. In the event of a conflict between the Umbrella Agreement and any Annex concerning the meaning of its provisions, and the rights, obligations and remedies of the Parties, the Umbrella Agreement is controlling.

### ARTICLE 3. RESPONSIBILITIES

#### A. NASA KSC will use reasonable efforts to:

1. Provide through the process set forth in Kennedy Documented Procedure KDP-KSC-P-9090 and on a reimbursable basis the services listed in Exhibit B. Any determination by NASA that the requested service or property is not available, that providing the service or property would compete with United States commercial providers, or that providing the service or property would interfere with its ongoing or projected launch operations will be deemed conclusive and is not subject to legal claim, judicial review, or other appeal.
2. In response to a service request, if NASA determines the request is within the NASA policy guidelines and is readily available in the timeframe requested, provide a statement of work, estimated cost, proposed schedule, and Annex to Partner for acceptance. Following Partner's acceptance, NASA will implement the request, provided sufficient funds are on deposit and resource authority is available at NASA.
3. In its response to service requests under subparagraph A.4. of this Article, NASA will define the applicable safety requirements for use of services support items.

#### B. Partner shall:

1. With the exception of those services identified as services that Partner must obtain from NASA, first seek to obtain services from commercial sources. Only when NASA KSC's provision of such services will not preclude, discourage, or compete with United States commercial providers, or when NASA must provide the service, may Partner request such services from NASA. Partner will submit commercial nonavailability documentation verification upon request.

NASA will provide services under this Umbrella Agreement only to the extent that the provision of such services does not result in NASA competing with the private sector. This requirement is embodied in NASA Policy Directive 9080.1, NASA Advisory Implementing Instruction 1050.1, and the National Space Policy of the United States (June 28, 2010).

2. Request available services set forth in Exhibit B, "Reimbursable Support Services," through the NASA KSC Technical Point of Contact set forth in Article 22, "Points of Contact," using KSC Form 50-202 set forth in Exhibit A, "Task Order Request," as part of Kennedy Documented Procedure KDP-KSC-P-9090. KSC Form 50-202 Task Order Request will be the basis for Annexes entered into under this Umbrella Agreement. Partner must submit these service requests with adequate advance notice and requisite information for proper scheduling and provision. To receive requested services, Partner shall adhere to any NASA requirements set forth in the form and the associated Annex.

3. Reimburse NASA in accordance with this Umbrella Agreement's Financial Obligations Article.
4. Adhere to all NASA KSC safety and health, fire protection, emergency management, export control, security, and information security requirements that are applicable to all services provided under this Agreement.

Partner shall provide all badged personnel information on KSC emergency procedures and hazards on KSC property. Personnel requiring entry to KSC access-controlled facilities/areas shall complete required area access training or be escorted by permanently badged personnel who have completed the required training.

Partner will promptly provide access to locations and information as requested by NASA safety personnel to ensure applicable safety requirements are implemented.

5. On a quarterly basis, Partner shall provide NASA with its anticipated short-term propellants and pressurants usage forecasts and other technical data that NASA may request in order for NASA to provide propellants and pressurants support to Partner activities.
6. On an annual basis on or before sixty (60) days prior to the anniversary of the Effective Date of this Agreement provide both long-range and short-range projections of any activities anticipated within the scope of this Agreement.
7. Comply with all applicable laws and regulations including, but not limited to, safety, security, export control, environmental, and suspension and debarment laws and regulations. Access by a Partner to NASA facilities or property, or to a NASA Information Technology (IT) system or application, is contingent upon compliance with NASA security and safety policies and guidelines, including, but not limited to, policy standards on badging and credentials and facility and IT system/application access. Partner may access only those facilities at KSC necessary or incident to carry out activities authorized by an Annex to this Agreement. Partner's access to any such facility shall be consistent with the purpose of this Agreement, in accordance with this Agreement's terms, and in compliance with all applicable NASA policies and procedures related to use of the Center or the facility, or other requirements agreed upon by the Parties in the Annex authorizing Partner's access to the facility.
8. Unless covered by an existing Agreement with NASA KSC authorizing Partner's use or occupancy of NASA-owned real property, comply with the applicable environmental requirements set forth in Exhibit D, "Compliance with Environmental Requirements," which is hereby incorporated by reference. The terms and conditions of any Partner agreement with NASA KSC for use and/or occupancy of NASA property shall control with regard to environmental requirements within that property's boundary.
9. Comply with the applicable coordination of operations requirements set forth in Exhibit E, "Coordination of Operations," which is hereby incorporated by reference.

#### **ARTICLE 4. SCHEDULE AND MILESTONES**

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

The Parties shall execute one (1) Annex concurrently with this Umbrella Agreement. The initial Annex and any subsequent Annexes will be performed on the schedule and in accordance with the milestones set forth in each respective Annex.

#### **ARTICLE 5. FINANCIAL OBLIGATIONS**

A. Partner agrees to reimburse NASA as set forth in each Annex for NASA to carry out its responsibilities under this Agreement. Partner shall make payment in advance of initiation of NASA's efforts on behalf of the Partner. Advance payments shall be scheduled to ensure that funds are resident with NASA before Federal obligations are incurred in support of work on behalf of the Partner.

B. Payment shall be payable to the National Aeronautics and Space Administration through the NASA Shared Services Center (NSSC) (choose one form of payment):

1. U.S. Treasury FEDWIRE Deposit System, Federal Reserve Wire Network Deposit System;
2. pay.gov at <https://www.nasa.gov/specials/nssc-pay/> and select the appropriate NASA Center for the agreement from the drop down; or
3. check. A check should be payable to NASA and sent to:

NASA Shared Services Center  
FMD – Accounts Receivable  
For the Accounts of: John F. Kennedy Space Center  
Building 1111,  
Jerry Hlass Rd.  
Stennis Space Center, MS 39529

Note that Annexes may originate from different Centers. Each payment shall be properly identified by Center. Payment by electronic transfer [#1 or #2, above], is strongly encouraged, and payment by check is to be used only if circumstances preclude the use of electronic transfer. 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). All payments and other communications regarding this Agreement shall reference the Center name, title, date, and number of this Agreement.

C. Notwithstanding any other provision of this Agreement, 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 6. PRIORITY OF USE**

Any schedule or milestone in this Agreement is estimated based upon the Parties' current understanding of the projected availability of NASA goods, services, facilities, or equipment. In the event that NASA's projected availability changes, Partner shall be given reasonable notice of that change, so that the schedule and milestones may be adjusted accordingly. The Parties agree that NASA's use of the goods, services, facilities, or equipment shall have priority over the use planned in this Agreement. Should a conflict arise, NASA in its sole discretion shall determine whether to exercise that priority. Likewise, should a conflict arise as between two or more non-NASA Partners, NASA, in its sole discretion, shall determine the priority as between those Partners. This Agreement does not obligate NASA to seek alternative government property or services under the jurisdiction of NASA at other locations.

#### **ARTICLE 7. NONEXCLUSIVITY**

This Agreement is not exclusive; accordingly, NASA may enter into similar agreements for the same or similar purpose with other private or public entities.

#### **ARTICLE 8. LIABILITY**

A. Partner hereby waives any claims against NASA or one or more of its Related Entities for any injury to, or death of, Partner or one or more of its Related Entities, or for damage to, or loss of, Partner's property or the property of its Related Entities, arising from or related to activities conducted under this Agreement, whether such injury, death, damage, or loss arises through negligence or otherwise, except in the case of willful misconduct. For purposes of this Agreement, "Related Entities" shall mean contractors and subcontractors of a Party at any tier; grantees, investigators, customers, and users of a Party at any tier and their contractors or subcontractor at any tier; or, employees of the Party or any of the foregoing.

B. Partner further agrees to extend this unilateral waiver to its related entities by requiring them, by contract or otherwise, to waive all claims against NASA and its Related Entities for injury, death, damage, or loss arising from or related to activities conducted under this Agreement. In the event the U.S. Government incurs any liability based upon Partner's failure to provide for the waiver by Partner's Related Entities set out above, Partner agrees to indemnify and hold the U.S. Government harmless against such liability, including costs and expenses incurred by the U.S. Government in defending against any suit or claim for liability by Partner's Related Entities.

C. In the event U.S. Government property is damaged as a result of activities conducted under this Agreement, except in the case of gross negligence or willful misconduct by NASA, Partner shall be solely responsible for the repair and restoration of such property subject to NASA direction;

D. Notwithstanding the other provisions of this Article, the waiver of liability set forth in this section shall not be applicable to:

- i. Claims between Partner and its own Related Entity or between its own Related Entities;
- ii. Claims made by a natural person, his/her estate, survivors, or anyone claiming by or through him/her (except when such person or entity is a Party to this Agreement or is otherwise bound by the terms of this waiver) for bodily injury to, or other impairment of health of, or death of, such person;
- iii. Claims for damage caused by willful misconduct;
- iv. Intellectual property claims;
- v. Claims for damage resulting from a failure of Partner to extend the waiver of liability to its Related Entities, pursuant to paragraph B of this Article; or
- vi. Claims by Partner arising out of or relating to NASA's failure to perform its obligations under this Agreement.

#### **ARTICLE 9. LIABILITY - PRODUCT LIABILITY**

With respect to products or processes resulting from a Party's participation in an SAA, each Party that markets, distributes, or otherwise provides such product, or a product designed or produced by such a process, directly to the public will be solely responsible for the safety of the product or process.

#### **ARTICLE 10. LIABILITY - PRODUCT LIABILITY INDEMNIFICATION**

In the event the U.S. Government incurs any liability based upon Partner's, or Partner's Related Entity's, use or commercialization of products or processes resulting from a Party's participation under this Agreement, Partner agrees to indemnify and hold the U.S. Government harmless against such liability, including costs and expenses incurred by the U.S. Government in defending against any suit or claim for such liability.

#### **ARTICLE 11. LIABILITY - INSURANCE FOR DAMAGE TO NASA PROPERTY**

A. Partner shall, at no cost to NASA, maintain throughout the term of the Agreement, insurance covering claims for bodily injury, personal injury, death, property damage, or other loss or damages arising from any activities conducted under this Agreement at such limits and upon such terms as are acceptable to NASA in its reasonable discretion, and shall provide NASA acceptable evidence of such insurance. Policy(ies) for property insurance must cover the cost of repair or replacement (as reasonably determined by NASA) of any U.S. Government property (real or personal) damaged as a result of activities conducted under this Agreement.

B. By signing this Agreement, Partner certifies that all insurance required under this Agreement is in effect, and is issued by companies with a credit rating of at least "A-" and a financial size category of at least "VIII" in the current edition of Best's Insurance Reports (or its equivalent successor, or, if there is no equivalent successor rating, otherwise mutually acceptable to the Parties) and are licensed to do and doing business in all states in which activities will be conducted under the Agreement. NASA is not obligated to provide access to its facilities or equipment under this Agreement until and unless the insurance required by this section is in effect. Any deductibles selected by Partner for any insurance coverage shall be the sole responsibility of Partner.

## **ARTICLE 12. INTELLECTUAL PROPERTY RIGHTS - DATA RIGHTS**

### **A. General**

1. "Related Entity" as used in this Data Rights Article means a contractor, subcontractor, grantee, or other entity having a legal relationship with NASA or Partner that is assigned, tasked, or contracted to perform activities under this Agreement.
2. "Data" means recorded information, regardless of form, the media on which it is recorded, or the method of recording.
3. "Proprietary Data" means Data embodying trade secrets developed at private expense or commercial or financial information that is privileged or confidential, and that includes a restrictive notice, unless the Data is:
  - a. known or available from other sources without restriction;
  - b. known, possessed, or developed independently, and without reference to the Proprietary Data;
  - c. made available by the owners to others without restriction; or
  - d. required by law or court order to be disclosed.
4. Data exchanged under this Agreement is exchanged without restriction except as otherwise provided herein.
5. Notwithstanding any restrictions provided in this Article, the Parties are not restricted in the use, disclosure, or reproduction of Data provided under this Agreement that meets one of the exceptions in 3., above. If a Party believes that any exceptions apply, it shall notify the other Party before any unrestricted use, disclosure, or reproduction of the Data.
6. The Parties will not exchange preexisting Proprietary Data under this Agreement unless authorized herein or in writing by the owner.

7. If the Parties exchange Data having a notice that the Receiving Party deems is ambiguous or unauthorized, the Receiving Party shall tell the Providing Party. If the notice indicates a restriction, the Receiving Party shall protect the Data under this Article unless otherwise directed in writing by the Providing Party.
8. The Data rights herein apply to the employees and Related Entities of Partner. Partner shall ensure that its employees and Related Entity employees know about and are bound by the obligations under this Article.
9. Disclaimer of Liability: NASA is not restricted in, or liable for, the use, disclosure, or reproduction of Data without a restrictive notice or for Data Partner gives, or is required to give, the U.S. Government without restriction.
10. Partner may use the following or a similar restrictive notice:

#### Proprietary Data Notice

The data herein include Proprietary Data and are restricted under the Data Rights provisions of Space Act Agreement [provide applicable identifying information].

Partner should also mark each page containing Proprietary Data with the following or a similar legend: "Proprietary Data – Use And Disclose Only Under the Notice on the Title or Cover Page."

#### B. Data First Produced by Partner Under this Agreement

If Data first produced by Partner or its Related Entities under this Agreement is given to NASA, and the Data is Proprietary Data, and it includes a restrictive notice, NASA will use reasonable efforts to protect it. The Data will be disclosed and used (under suitable protective conditions) only for U.S. Government purposes.

#### C. Data First Produced by NASA Under this Agreement

If Partner requests that Data first produced by NASA under this Agreement be protected, and NASA determines it would be Proprietary Data if obtained from Partner, NASA will mark the Data with a restrictive notice and will use reasonable efforts to protect it for the period of time specified in the Annex under which the Data is produced. During this restricted period the Data may be disclosed and used (under suitable protective conditions) for U.S. Government purposes only, and thereafter for any purpose. Partner must not disclose the Data without NASA's written approval during the restricted period. The restrictions placed on NASA do not apply to Data disclosing a NASA owned invention for which patent protection is being considered.

#### D. Publication of Results

The National Aeronautics and Space Act (51 U.S.C. § 20112) requires NASA to provide for the widest practicable and appropriate dissemination of information concerning its activities and the results thereof. As such, NASA may publish unclassified and non-Proprietary Data resulting



from work performed under this Agreement. The Parties will coordinate publication of results allowing a reasonable time to review and comment.

#### E. Data Disclosing an Invention

If the Parties exchange Data disclosing an invention for which patent protection is being considered, and the furnishing Party identifies the Data as such when providing it to the Receiving Party, the Receiving Party shall withhold it from public disclosure for a reasonable time (one (1) year unless otherwise agreed or the Data is restricted for a longer period herein).

#### F. Copyright

Data exchanged with a copyright notice and with no restrictive notice is presumed to be published. The following royalty-free licenses apply:

1. If indicated on the Data that it was produced outside of this Agreement, it may be reproduced, distributed, and used to prepare derivative works only for carrying out the Receiving Party's responsibilities under this Agreement.
2. Data without the indication of F.1. is presumed to be first produced under this Agreement. Except as otherwise provided in paragraph E. of this Article, and in the Invention and Patent Rights Article of this Agreement for protection of reported inventions, the Data may be reproduced, distributed, and used to prepare derivative works for any purpose.

#### G. Data Subject to Export Control

Whether or not marked, technical data subject to the export laws and regulations of the United States provided to Partner under this Agreement must not be given to foreign persons or transmitted outside the United States without proper U.S. Government authorization.

#### H. Handling of Background, Third Party and Controlled Government Data

1. NASA or Partner (as Disclosing Party) may provide the other Party or its Related Entities (as Receiving Party):
  - a. Proprietary Data developed at the Disclosing Party's expense outside of this Agreement (referred to as Background Data);
  - b. Proprietary Data of third parties that the Disclosing Party has agreed to protect or is required to protect under the Trade Secrets Act (18 U.S.C. § 1905) (referred to as Third Party Proprietary Data); and
  - c. U.S. Government Data, including software and related Data, the Disclosing Party intends to control (referred to as Controlled Government Data).

2. All Background, Third Party Proprietary and Controlled Government Data provided by Disclosing Party to Receiving Party shall be marked by Disclosing Party with a restrictive notice and protected by Receiving Party in accordance with this Article.
3. Identification of Data:
  - a. All Background, Third Party Proprietary and Controlled Government Data provided by Disclosing Party shall be identified in the Annex under which it will be provided.
  - b. NASA software and related Data provided to Partner shall be identified in the Annex under which it will be used. Notwithstanding H.4., Software and related Data will be provided to Partner under a separate Software Usage Agreement (SUA). Partner shall use and protect the related Data in accordance with this Article. Unless the SUA authorizes retention, or Partner enters into a license under 37 C.F.R. Part 404, the related Data shall be disposed of as instructed by NASA.
4. For such Data identified with a restrictive notice pursuant to H.2. including Data identified pursuant to this Article in an Annex, Receiving Party shall:
  - a. Use, disclose, or reproduce such Data only as necessary under this Agreement;
  - b. Safeguard such Data from unauthorized use and disclosure;
  - c. Allow access to such Data only to its employees and any Related Entity requiring access under this Agreement;
  - d. Except as otherwise indicated in 4.c., preclude disclosure outside Receiving Party's organization;
  - e. Notify its employees with access about their obligations under this Article and ensure their compliance, and notify any Related Entity with access about their obligations under this Article; and
  - f. Dispose of such Data as Disclosing Party directs.

#### I. Oral and visual information

If Partner discloses Proprietary Data orally or visually, NASA will have no duty to restrict, or liability for disclosure or use, unless Partner:

1. Orally informs NASA before initial disclosure that the Data is Proprietary Data, and
2. Reduces the Data to tangible form with a restrictive notice and gives it to NASA within ten (10) calendar days after disclosure.

## **ARTICLE 13. INTELLECTUAL PROPERTY RIGHTS - INVENTION AND PATENT RIGHTS**

- A. "Related Entity" as used in this Invention and Patent Rights Article means a contractor, subcontractor, grantee, or other entity having a legal relationship with NASA or Partner assigned, tasked, or contracted with to perform activities under this Agreement.
- B. The invention and patent rights herein apply to employees and Related Entities of Partner. Partner shall ensure that its employees and Related Entity employees know about and are bound by the obligations under this Article.
- C. NASA has determined that 51 U.S.C. § 20135(b) does not apply to this Agreement. Therefore, title to inventions made (conceived or first actually reduced to practice) under this Agreement remain with the respective inventing party(ies). No invention or patent rights are exchanged or granted under this Agreement. NASA and Partner will use reasonable efforts to report inventions made jointly by their employees (including employees of their Related Entities). The Parties will consult and agree on the responsibilities and actions to establish and maintain patent protection for joint invention, and on the terms and conditions of any license or other rights exchanged or granted between them.

## **ARTICLE 14. USE OF NASA NAME AND NASA EMBLEMS**

### **A. NASA Name and Initials**

Partner shall not use "National Aeronautics and Space Administration" or "NASA" in a way that creates the impression that a product or service has the authorization, support, sponsorship, or endorsement of NASA, which does not, in fact, exist. Except for releases under the "Release of General Information to the Public and Media" Article, Partner must submit any proposed public use of the NASA name or initials (including press releases and all promotional and advertising use) to the NASA Associate Administrator for the Office of Communications or designee ("NASA Communications") for review and approval. Approval by NASA Office of Communications shall be based on applicable law and policy governing the use of the NASA name and initials.

### **B. NASA Emblems**

Use of NASA emblems (i.e., NASA Seal, NASA Insignia, NASA logotype, NASA Program Identifiers, and the NASA Flag) is governed by 14 C.F.R. Part 1221. Partner must submit any proposed use of the emblems to NASA Communications for review and approval.

## **ARTICLE 15. RELEASE OF GENERAL INFORMATION TO THE PUBLIC AND MEDIA**

NASA or Partner may, consistent with Federal law and this Agreement, release general information regarding its own participation in this Agreement as desired.

Pursuant to Section 841(d) of the NASA Transition Authorization Act of 2017, Public Law 115-10 (the "NTAA"), NASA is obligated to publicly disclose copies of all agreements conducted pursuant to NASA's 51 U.S.C. §20113(e) authority in a searchable format on the NASA website within 60 days after the agreement is signed by the Parties. The Parties acknowledge that a copy of this Agreement will be disclosed, without redactions, in accordance with the NTAA.

## **ARTICLE 16. DISCLAIMER OF WARRANTY**

Goods, services, facilities, or equipment provided by NASA under this Agreement are provided "as is." NASA makes no express or implied warranty as to the condition of any such goods, services, facilities, or equipment, or as to the condition of any research or information generated under this Agreement, or as to any products made or developed under or as a result of this Agreement including as a result of the use of information generated hereunder, or as to the merchantability or fitness for a particular purpose of such research, information, or resulting product, or that the goods, services, facilities or equipment provided will accomplish the intended results or are safe for any purpose including the intended purpose, or that any of the above will not interfere with privately-owned rights of others. Neither the government nor its contractors shall be liable for special, consequential or incidental damages attributed to such equipment, facilities, technical information, or services provided under this Agreement or such research, information, or resulting products made or developed under or as a result of this Agreement.

## **ARTICLE 17. DISCLAIMER OF ENDORSEMENT**

NASA does not endorse or sponsor any commercial product, service, or activity. NASA's participation in this Agreement or provision of goods, services, facilities or equipment under this Agreement does not constitute endorsement by NASA. Partner agrees that nothing in this Agreement will be construed to imply that NASA authorizes, supports, endorses, or sponsors any product or service of Partner resulting from activities conducted under this Agreement, regardless of the fact that such product or service may employ NASA-developed technology.

## **ARTICLE 18. COMPLIANCE WITH LAWS AND REGULATIONS**

A. The Parties shall comply with all applicable laws and regulations including, but not limited to, safety; security; export control; environmental; and suspension and debarment laws and regulations. Access by a Partner to NASA facilities or property, or to a NASA Information Technology (IT) system or application, is contingent upon compliance with NASA security and safety policies and guidelines including, but not limited to, standards on badging, credentials,

and facility and IT system/application access, including use of Interconnection Security Agreements (ISAs), when applicable.

B. With respect to any export control requirements:

1. The Parties will comply with all U.S. export control laws and regulations, including the International Traffic in Arms Regulations (ITAR), 22 C.F.R. Parts 120 through 130, and the Export Administration Regulations (EAR), 15 C.F.R. Parts 730 through 799, in performing work under this Agreement or any Annex to this Agreement. In the absence of available license exemptions or exceptions, the Partner shall be responsible for obtaining the appropriate licenses or other approvals, if required, for exports of hardware, technical data and software, or for the provision of technical assistance.
2. The Partner shall be responsible for obtaining export licenses, if required, before utilizing foreign persons in the performance of work under this Agreement or any Annex under this Agreement, including instances where the work is to be performed on-site at NASA and where the foreign person will have access to export-controlled technical data or software.
3. The Partner will be responsible for all regulatory record-keeping requirements associated with the use of licenses and license exemptions or exceptions.
4. The Partner will be responsible for ensuring that the provisions of this Article apply to its Related Entities.

C. With respect to suspension and debarment requirements:

1. The Partner hereby certifies, to the best of its knowledge and belief, that it has complied, and shall comply, with 2 C.F.R. Part 180, Subpart C, as supplemented by 2 C.F.R. Part 1880, Subpart C.
2. The Partner shall include language and requirements equivalent to those set forth in subparagraph C.1., above, in any lower-tier covered transaction entered into under this Agreement.

D. With respect to the requirements in Section 889 of the National Defense Authorization Act (NDAA) for Fiscal Year 2019, Public Law 115-232:

1. In performing this Agreement, Partner will not use, integrate with a NASA system, or procure with NASA funds (if applicable), "covered telecommunications equipment or services" (as defined in Section 889(f)(3) of the NDAA).
2. The Partner will ensure that the provisions of this Article apply to its Related Entities.

## ARTICLE 19. TERM OF AGREEMENT

This Agreement 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.

## ARTICLE 20. RIGHT TO TERMINATE

Either Party may unilaterally terminate this Umbrella Agreement or any Annex(es) by providing thirty (30) calendar days written notice to the other Party. Termination of an Annex does not terminate this Umbrella Agreement. However, the termination or expiration of this Umbrella Agreement also constitutes the termination of all outstanding Annexes. In the event of termination of any of the Annex(es), Partner will be obligated to reimburse NASA for all its costs which have been incurred in support of that Annex(es) up to the date the termination notice was received by NASA. In the event of termination of this Umbrella Agreement, Partner will be obligated to reimburse NASA for all costs which it incurred in support of this Umbrella Agreement up to the date the termination notice was received by NASA. Where Partner terminates this Umbrella Agreement or any Annex(es), Partner will also be responsible for those costs which are incurred as a result of such termination.

## ARTICLE 21. CONTINUING OBLIGATIONS

The rights and obligations of the Parties that, by their nature, would continue beyond the expiration or termination of this Agreement, e.g., "Liability and Risk of Loss", "Intellectual Property Rights"-related clauses, and "Financial Obligations" shall survive such expiration or termination of this Agreement.

## ARTICLE 22. POINTS OF CONTACT

The following personnel are designated as the Points of Contact between the Parties in the performance of this Agreement. Annexes may designate Points of Contact for purposes of the Annex activities.

### Management Points of Contact

#### NASA John F. Kennedy Space Center

Nancy S. Cuty  
Partnership Development Manager  
Mail Stop: AD-C  
Kennedy Space Center, FL 32899  
Phone: 321-867-9761  
[nancy.s.cuty@nasa.gov](mailto:nancy.s.cuty@nasa.gov)

#### University of Dayton

Mary Beth Markus  
Principal Contracts Manager  
300 College Park  
Dayton, OH 45469-0002  
Phone: 937-229-2936  
[mary.beth.markus@udri.udayton.edu](mailto:mary.beth.markus@udri.udayton.edu)

### Technical Points of Contact

#### NASA John F. Kennedy Space Center

Dr. Eliza L. Montgomery  
Corrosion Engineering Laboratory  
Manager  
Mail Suite: NE-L70  
Kennedy Space Center, FL 32899  
Phone: 321-867-6364  
[eliza.l.montgomery@nasa.gov](mailto:eliza.l.montgomery@nasa.gov)

#### University of Dayton

Matthew Rothgeb  
Group Leader – Coatings, Corrosion and Erosion  
300 College Park  
Dayton, OH 45469-0002  
Phone: 937-255-4017  
[matthew.rothgeb@udri.udayton.edu](mailto:matthew.rothgeb@udri.udayton.edu)

#### NASA John F. Kennedy Space Center

Michelle Pierre  
AST, Structural Materials  
Mail Suite: NE-L70  
Kennedy Space Center, FL 32899  
Phone: 321-867-4554  
[michelle.s.pierre@nasa.gov](mailto:michelle.s.pierre@nasa.gov)

### **ARTICLE 23. DISPUTE RESOLUTION**

Except as otherwise provided in the Article entitled "Priority of Use," the Article entitled "Intellectual Property Rights – Invention and Patent Rights" (for those activities governed by 37 C.F.R. Part 404), and those situations where a pre-existing statutory or regulatory system exists (e.g., under the Freedom of Information Act, 5 U.S.C. § 552), all disputes concerning questions of fact or law arising under this Agreement or Annex shall be referred by the claimant in writing to the appropriate person identified in this Agreement for purposes of the activities undertaken in the Agreement, or Annex(es) for purposes of the activities undertaken in the Annex(es) as the "Points of Contact." The persons identified as the "Points of Contact" for NASA and the Partner will consult and attempt to resolve all issues arising from the implementation of this Agreement. If they are unable to come to agreement on any issue, the dispute will be referred to the signatories to this Agreement, or their designees, for joint resolution. If the Parties remain unable to resolve the dispute, then the NASA signatory or that person's designee, as applicable, will issue a written decision that will be the final agency decision for the purpose of judicial review. Nothing in this Article limits or prevents either Party from pursuing any other right or remedy available by law upon the issuance of the final agency decision.

## **ARTICLE 24. INVESTIGATIONS OF MISHAPS AND CLOSE CALLS**

In the case of a close call, mishap or mission failure, the Parties agree to provide assistance to each other in the conduct of any investigation. For all NASA mishaps or close calls, Partner agrees to comply with NPR 8621.1, "NASA Procedural Requirements for Mishap and Close Call Reporting, Investigating, and Recordkeeping" and for KSC-Reportable Mishaps and Close Calls, as defined in KNPR 8715.3-3, "KSC Safety Procedural Requirements for Partners Operating in Exclusive-Use Facilities", Partner agrees to comply with the requirements in KNPR 8715.3-3  
CHAPTER 6: MISHAPS AND CLOSE CALLS.

## **ARTICLE 25. MODIFICATIONS**

Any modification to this Umbrella Agreement shall be executed, in writing, and signed by an authorized representative of NASA and the Partner. Accompanying Annexes may be modified under the same terms. Modification of an Annex does not modify the Umbrella Agreement.

## **ARTICLE 26. ASSIGNMENT**

Neither this Agreement nor any interest arising under it will be assigned by the Partner or NASA without the express written consent of the officials executing, or successors, or higher-level officials possessing original or delegated authority to execute this Agreement.

## **ARTICLE 27. APPLICABLE LAW**

U.S. Federal law governs this Agreement for all purposes, including, but not limited to, determining the validity of the Agreement, the meaning of its provisions, and the rights, obligations and remedies of the Parties.

## **ARTICLE 28. INDEPENDENT RELATIONSHIP**

This Agreement is not intended to constitute, create, give effect to or otherwise recognize a joint venture, partnership, or formal business organization, or agency agreement of any kind, and the rights and obligations of the Parties shall be only those expressly set forth herein.

## **ARTICLE 29. LOAN OF GOVERNMENT PROPERTY**

The parties shall enter into a NASA Form 893, Loan of NASA Equipment, for NASA equipment loaned to Partner.



**ARTICLE 30. SIGNATORY AUTHORITY**

The signatories to this Agreement covenant and warrant that they have authority to execute this Agreement. By signing below, the undersigned agrees to the above terms and conditions.

NATIONAL AERONAUTICS AND SPACE  
ADMINISTRATION  
JOHN F. KENNEDY SPACE CENTER

UNIVERSITY OF DAYTON RESEARCH  
INSTITUTE

BY: \_\_\_\_\_  
Shawn Quinn  
Director of Engineering

BY: \_\_\_\_\_  
Jason, Correll  
Director, Contracts & Grants Office

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

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

**Exhibit A**  
**TASK ORDER REQUEST**

<b>Task Order Request</b>		
Submit form to: KSC-TASK-ORDER-REQUESTS@mail.nasa.gov		
Services/Support Authorization From: <input type="checkbox"/> Commercial Space Launch Act (CSLA) Subagreement <input type="checkbox"/> Enhanced Use Lease (EUL)/Use Permit <input type="checkbox"/> Space Act Agreement (SAA) <input type="checkbox"/> Other	Services/Support Provided t: (Partner Name)	
	NASA/Kennedy Agreement Number:	
Mission: (If applicable)	Need Date	Control Number (to be completed by NASA)
TECHNICAL POINT OF CONTACT		
Name	Phone Number	Email Address
Authorized Requester (Print Name)		Date of Request
Description of Desired Services/Support:		

<b>Task Order Request</b>		
Services/Support Authorization From: <input type="checkbox"/> Commercial Space Launch Act (CSLA) Subagreement <input type="checkbox"/> Enhanced Use Lease (EUL)/Use Permit <input type="checkbox"/> Space Act Agreement (SAA) <input type="checkbox"/> Other		Services/Support Provided t: (Partner Name)  NASA/Kennedy Agreement Number:
Mission: (If applicable)	Need Date	Control Number (to be completed by NASA)
<b>TO BE COMPLETED BY NASA</b>		
Services/Support Offered:		
<b>Proposed Schedule</b>		
Estimated Cost		Funds Available? <input type="checkbox"/> Yes <input type="checkbox"/> No
NASA Project Engineer (Print Name)	NASA Project Engineer (Email Address)	Phone Number
NASA Approver (Print Name)	NASA Approver (Signature)	Date
Partner Concurrence (Print Name)	Partner Concurrence (Signature)	Date

**Exhibit B**

**REIMBURSABLE SUPPORT SERVICES**

Commodity/Service	Service Level
<b>Use of Support Equipment</b>	Temporary use of equipment to support Partner's operations may be provided in accordance with this Agreement's Loan of Government Property Article.
<b>*Communications Services</b>	<p>Establish point-to-point communication circuits from demarcation point to available communication services as requested utilizing excess Government resources.</p> <p>Partner may pay for adding infrastructure to the communication duct system as required. Partner must pay for the installation and maintenance required on the cable.</p> <p>Communication circuit maintenance (per month cost) is provided as a recurring information technology service utility in accordance with this Agreement's Responsibilities and Financial Obligations Articles.</p>
<b>Launch Telemetry and Communication Services</b>	Services operated by the NASA Launch Services Program, including the NASA telemetry lab, Mission Director's Center, Launch Vehicle Data Centers, and other communications services or connectivity. This does not include use of Communication Security or Tracking and Data Relay Satellite System equipment.
<b>*Locksmith</b>	Provide cores on external doors and fire panels. Partner shall procure commercial locksmith services for lock cores not required by KSC for emergency/fire access.
<b>Janitorial</b>	Specialized cleaning services (i.e. Cleanroom Services)
<b>KSC Institutional and Operational Support</b>	Technical shop and laboratory support, operational support, launch imagery products and analysis, telemetry, heavy equipment (e.g., forklifts, cranes, KAMAGs, Crawler/Transporter), transportation, permitting, meteorological support, site planning, technical training, and other services as deemed appropriate by NASA on a case-by-case basis.
<b>*Police/Fire/EMS</b>	Dedicated fire of security support (e.g., facility access control, road closures, armed guards, dedicated in-district/in-station fire support, on-Center security escorts).
<b>Propellants and Propellants Services</b>	<p>Ordering, receiving, storage, maintenance, and delivery of propellants, pressurants (such as gaseous helium (GHe), gaseous nitrogen (GN2), liquid hydrogen (LH2), liquid oxygen (LO2), liquid nitrogen (LN2), hypergolic fuels/oxidizers, and certain specialty gases and solvents), and equipment; related ancillary laboratory support services; and Partner's use of propellant servicing areas or capabilities (e.g., Universal Propellant Servicing System).</p> <p>KSC may provide hypergolic fuels and standard decontamination services for hypergol storage cylinders, hoses, and select components.</p> <p>Partner will provide anticipated short-term propellants and pressurants usage forecasts and other technical data, as necessary for NASA to provide support.</p>

<b>Life Support</b>	Staging, maintenance, and inspection of life support equipment, which can include Self-Contained Atmospheric Protective Ensemble (SCAPE), Emergency Life Support Apparatus, Self-Contained Breathing Apparatus, or other respiratory equipment.
<b>*Ordnance Storage and Transport</b>	Receiving, transportation, and storage of ordnance on KSC.
<b>Occupational Medicine and Environmental Health</b>	Supply of Occupational Health Facility services during normal KSC operational hours in support of certifications (e.g., SCAPE), as well as Environmental Health Services such as industrial hygiene and radiation safety consultation.
<b>*Spill Cleanup</b>	Remediation of spills on pervious and impervious surfaces, confirmation sampling, and reporting.
<b>Regulated Waste</b>	Regulated Waste – hypergolic: hypergolic waste sampling, characterization, and disposal.  Regulated Waste – other: waste sampling, characterization, and disposal. Regulated wastes include, but are not limited to, hazardous waste, ordnance waste, nonhazardous industrial waste, biomedical waste, asbestos waste, industrial wastewater, polychlorinated biphenyl waste, etc. Hazardous wastes shall be manifested, shipped, and disposed of under Partner's Environmental Protection Agency hazardous waste generator identification number. Service will be evaluated on a case-by-case basis and may be available depending on specialization of service request.
<b>*Discharge Approval (Nondomestic Wastewater)</b>	Review, coordinate, and obtain approval from the U.S. Air Force/45th Space Wing for Partner's request to discharge nondomestic wastewater into the KSC/Cape Canaveral Air Force Station sewer system.
<b>Environmental Support</b>	Consultations, sampling, monitoring, regulatory reporting, environmental assessments.
<b>Guest and Media Support Services</b>	Launch viewing and special event sites and associated support services (e.g., logistics, audiovisual) in accordance with this Agreement's Special Considerations for Guest and Media Support Services Exhibit.

**\*These services must be obtained from NASA even if commercially available.**

**Exhibit C**

**SPECIAL CONSIDERATIONS FOR GUEST AND MEDIA SUPPORT SERVICES**

## **SPECIAL CONSIDERATIONS FOR GUEST AND MEDIA SUPPORT SERVICES**

The following requirements apply to guest and media support services:

- A. Partner shall coordinate with NASA's Communication and Public Engagement directorate, Outreach and Guest Operations and Communication Offices; on the desired use of date, location, requested KSC contractor services, excluding food services, and the number of planned guests and media 45 days prior to planned activity or as soon as known.
- B. Partner shall notify and coordinate directly with KSC's on-site contractor for access to facilities and communication feeds required for the transmission of signal from mission control to KSC facilities to enable mission coverage for media and guests at KSC launch viewing sites 45 days prior to the planned activity date (where applicable).
- C. Partner shall submit to designated NASA Outreach and Guest Operations Office and Protective Services points of contact, for approval, an Integrated Guest Operations and Communications Plan, including a Security Plan for each activity 45 days in advance of the planned activity date.
- D. Partner shall submit to NASA Outreach and Guest Operations Office and Protective Services points of contact an integrated list of foreign national guests and foreign national media with required supporting information, in accordance with NASA policy, 45 days in advance of planned activity date.
- E. Partner shall make advance payment to NASA for the estimated cost of each activity 30 days in advance of planned activity date.
- F. Partner shall submit any updated required documentation (Guest list [including media with both foreign national and U.S. citizens] at each viewing site; updated Integrated Guest Operations and Communications Plan for each activity; updates to viewing site(s) logistics to allow time for implementation; list of bus/foreign national escorts; security points of contact for viewing site(s)) and complete requirements coordination for final site approval 10 business days prior to the planned activity date.
- G. Partner shall notify and coordinate directly with KSC's Food Service and Visitor Complex Concessioners for requirements provided by those entities responsible for non-NASA-controlled property (e.g., catering) where applicable. Payment terms and cost estimates for Concessioner-provided services are negotiated directly between Partner and respective Concessioner unless otherwise agreed to in estimate provided to Partner.
- H. Partner shall notify the NASA KSC Legislative Affairs Office via the Legislative Affairs Office point of contact of any elected officials being escorted onto KSC property for launch viewing, special event purposes, or any other purposes.
- I. Partner shall adhere to all NASA policies and regulations, including, but not limited to, those pertaining to alcohol on KSC.



- J. NASA will collaborate with Partner on joint launch viewing of NASA missions and special events and provide support services on a reimbursable basis to include development of an Integrated Guest Operations and Communications Plan for each event.
- K. For collaborative efforts, Partner shall not invite or approve any media for entry into, or use of, KSC launch viewing or special event sites without prior approval of NASA.

For additional information regarding guest and media support, please contact:

Outreach and Guest Operations Office

Rebecca Lewis  
Mail Code: PX-O  
Kennedy Space Center, FL 32899-0001  
Phone: 321-867-4053  
[rebeccal.lewis@nasa.gov](mailto:rebeccal.lewis@nasa.gov)

Communication Office

Amanda Griffin  
Mail Code: PX-C  
Kennedy Space Center, FL 32899-0001  
Phone: 321-867-3583  
[amanda.griffin@nasa.gov](mailto:amanda.griffin@nasa.gov)

Protective Services

Tina Delahunty  
Mail Code: SI-P  
Kennedy Space Center, FL 32899-0001  
Phone: 321-867-2612  
[tina.d.delahunty@nasa.gov](mailto:tina.d.delahunty@nasa.gov)

Legislative Affairs Office

Celene Morgan  
Mail Code: AD  
Kennedy Space Center, FL 32899-0001  
Phone: 321-867-2512  
[celene.l.morgan@nasa.gov](mailto:celene.l.morgan@nasa.gov)

**Exhibit D**

**COMPLIANCE WITH ENVIRONMENTAL REQUIREMENTS**

## COMPLIANCE WITH ENVIRONMENTAL REQUIREMENTS

### 1. Definitions

- A. As used in this Agreement, “**Environmental Law**” shall mean all applicable Federal, state, and local environmental laws, statutes, ordinances, regulations, rules, judicial and administrative orders, and decrees issued by governmental agencies (including, but not limited to, the United States Environmental Protection Agency, United States Department of Transportation, United States Occupational Safety and Health Administration, United States Nuclear Regulatory Commission, and Florida Department of Environmental Protection), existing now or later adopted during the Term of this Agreement.
- B. As used in this Agreement, “**Hazardous Material**” shall mean any hazardous material, hazardous substance, or hazardous waste as defined under Environmental Law.
- C. As used in this Agreement, “**Regulated Waste**” shall mean nonmunicipal solid waste where the management and/or disposal are regulated by Environmental Law. Examples include hazardous waste, nonhazardous industrial waste, biomedical waste, asbestos waste, industrial wastewater, propellant waste, ordnance waste, polychlorinated biphenyl waste, and radioactive waste.
- D. As used in this Agreement, “**Environmental Permit**” shall mean environmental permit, license, registration, authorization, clearance, or regulatory agency approval.
- E. As used in this Agreement, “**Permit Application**” shall mean permit application forms and supporting documentation, Notice of Intent forms and supporting documentation, registration forms, license forms, or other regulatory approval requests.
- F. As used in this Agreement, “**Partner Entities**” shall mean all employees, consultants, developers, contractors, subcontractors, tenants, or other entities performing, managing, or directing work for Partner.

### 2. General Compliance and Permitting

- A. Unless otherwise stated in this Umbrella Agreement, an Annex, or a TOR response, Partner is solely responsible for ensuring that all operations and activities performed under this Agreement comply with Environmental Law, at Partner’s expense. This includes, but is not limited to,
  - 1. Services and work performed by NASA contractors or NASA personnel for Partner under this Agreement,
  - 2. NASA-owned equipment deployed to Partner sites to support Partner activities and operations regardless of whether the equipment is used, controlled, maintained, repaired, serviced, fueled, or operated by Partner, NASA contractors, or NASA personnel,

3. Facilities, infrastructure, and equipment used by NASA contractors or NASA personnel to accomplish services requested by Partner under this Agreement, and
  4. Regulated Waste generated by NASA contractors or NASA personnel while accomplishing the services requested by Partner under this Agreement regardless of location.
- B. Partner shall ensure that all environmental compliance requirements in this exhibit are communicated to NASA contractors and NASA personnel performing services for Partner under this Agreement and to all Partner Entities.
- C. Partner shall be liable for any environmental contamination and any noncompliance with Environmental Law (including all associated penalties and/or fines) associated with the performance of services under this Agreement. If formal enforcement actions are taken against NASA for environmental violations due to services provided under this Agreement, Partner shall reimburse NASA for any fines or penalties assessed.
- D. If an Environmental Permit is required to execute the services performed under this Agreement, the Partner shall be responsible for obtaining the Environmental Permit at Partner's expense. When required by law or regulation, NASA may sign Permit Applications as the landowner or utility system owner. Partner shall provide copies of Permit Applications to the NASA Environmental Assurance Branch (EAB) within five (5) working days after submission to the regulatory agency. Partner shall provide copies of issued Environmental Permits to the NASA EAB within five (5) working days after receipt from the regulatory agency. Partner shall ensure that all operations, activities, equipment, and facilities are in full compliance with all Environmental Permit terms and conditions. Upon termination of this Agreement, Partner shall cancel all Environmental Permits.

### **3. KSC Environmental Checklists and National Environmental Policy Act (NEPA)**

- A. NASA may require additional information about the services requested through an Annex or TOR to evaluate the compliance, permitting, or NEPA requirements associated with the work. When requested by NASA, Partner shall complete and submit a KSC Environmental Checklist (KSC Form 21-608) to the NASA Environmental Management Branch (EMB) for evaluation. Projects, activities, and circumstances that typically require KSC Environmental Checklists include:
1. Services which generate Regulated Waste, involve air emissions, impact existing NASA-held permits, or involve the deployment of NASA-owned equipment
  2. Facility construction, demolition, or modification projects (major or minor)
  3. Excavations, land clearing, vegetation removal, or grading
  4. Installing new impervious surface, removing existing impervious surface, or changing the permeability of existing pervious surface
  5. Connecting, disconnecting, or modifying the configuration or operation of a NASA-owned system, facility, utility, or stormwater management system

6. Changes in site operations, activities, facility operator, occupant, or tenant
- B. Partner shall comply with all environmental requirements and direction provided by the NASA EMB in the Record of Environmental Consideration (REC) response to the KSC Environmental Checklist.
  - C. If required in the REC, Partner is responsible for funding and completing required environmental assessments; National Environmental Policy Act (NEPA) documentation; National Historic Preservation Act (NHPA) documentation; and environmental mitigation measures for the services performed under this Agreement.

#### **4. Regulated Waste Management and Disposal**

Partner shall be responsible for all Regulated Wastes generated by NASA contractors or NASA personnel during the performance of services for Partner under this Agreement regardless of whether the Regulated Wastes were generated at Partner work sites/facilities or at NASA contractor work sites/facilities. Unless otherwise stated in this Umbrella Agreement, an Annex, or a TOR response, NASA contractors will not provide Regulated Waste management and disposal services to Partner. Partner shall make separate arrangements for the proper storage, sampling, characterization, manifesting, shipping, and disposal of those Regulated Wastes in accordance with Environmental Law at Partner's expense. Hazardous wastes shall be manifested, shipped, and disposed of under Partner's United States Environmental Protection Agency hazardous waste generator identification number.

#### **5. Spill Reporting and Cleanup**

- A. Partner shall be responsible for all costs associated with the reporting and cleanup of spills of Hazardous Materials that occur during the performance of services for Partner under this Agreement regardless of whether the spill or release occurs at Partner work sites/facilities or at NASA contractor work sites/facilities.
- B. For spills of Hazardous Materials at facilities or property leased by Partner occurring during the performance of services for Partner under this Agreement, Partner shall perform all reporting (to NASA EAB and offsite authorities such as the National Response Center, Florida State Watch Office, and Florida Department of Environmental Protection) and cleanup activities in accordance with the requirements of the applicable real property agreement.
- C. For spills of Hazardous Materials at other locations occurring during the performance of services for Partner under this Agreement, NASA contractor or NASA personnel will notify the NASA EAB and submit reporting forms in accordance with KNPR 8500.1 (*KSC Environmental Requirements*) at Partner's expense. NASA EAB will perform any required reporting to offsite authorities such as the National Response Center, Florida State Watch Office, and Florida Department of Environmental Protection. NASA's spill cleanup contractor will perform the cleanup and prepare a cleanup report at Partner's expense.

- D. All spills shall be cleaned up to state of Florida residential standards unless approved in writing by the NASA EAB.
- E. Partner shall be responsible for offsite shipment and disposal of all cleanup waste and contaminated environmental media per Section 4 above.
- F. The liability of Partner under this section of this Agreement shall survive the termination of this Agreement with respect to acts or omissions that occur before such termination.

#### **6. Continuing Liability**

This environmental section shall survive the termination of this Agreement with respect to any damage, bodily or personal injury, illness, or death occurring prior to such termination. This environmental section shall survive the termination of this Agreement with respect to any environmental noncompliance condition(s) identified (before or after termination of this Agreement) by NASA KSC; Federal, state, or local regulatory authorities; or Partner and shall continue until such noncompliance condition is fully mitigated, remediated, abated, or otherwise remedied to the satisfaction of NASA KSC and Federal, state, or local regulatory authorities with an interest in the noncompliance condition.

**Exhibit E**  
**COORDINATION OF OPERATIONS**

## COORDINATION OF OPERATIONS

NASA KSC manages the Spaceport Integrated Master Schedule (SIMS) to coordinate maintenance tasks, track resources, major hazards, and other relevant information throughout KSC. PARTNER shall participate in the SIMS process including meetings and information exchange in order to provide the following required information:

- Launch, landing, and/or recovery operations
- Major operations testing (e.g., wet dress rehearsal, launch abort testing, static fire operations)
- Advise when planning use of cryogenic fuels (does not include LOX), hypergolic materials, or ammonia fluids requiring a 50 ft. or greater safety clear
- Advise when planning ordnance, explosives, solid propellant, or other hazardous operations requiring a 50 ft. or greater safety clear
- Nuclear materials operations
- Unmanned aircraft systems operations
- Operations utilizing Class 3B and 4 lasers, unless hazards are confined to a specific location within a facility or facility boundary
- Specific routing of flight hardware or significant science arriving on, transiting through, or departing from KSC with air quality concerns or restrictions, or which require permitting; including movement of any load that exceeds KSC road/bridge width or weight restrictions
- Instances of documented increased facility air quality restrictions
- Operations that require large-volume-usage of the NASA KSC nitrogen and helium pipelines as described by the following:
  - Low pressure gaseous nitrogen (GN2) - Any use
  - High pressure GN2 – any additional flows of 1,000 standard cubic feet per minute are required for more than 1 hour or any time pressures greater than 4,200 pounds per square inch gage (psig) are required.
  - Gaseous Helium (GHe) – any time there is a requirement to take more than 50,000 standard cubic feet (scf), or any time pressure is required above 4,500 psig.
- Roadblocks or road closures on KSC
- Operations that require one of the FAA-defined restricted airspace designations (R2932, R2933, R2934) to be called up for use
- Construction activities or large construction equipment/material moves that could reasonably be anticipated to impact spaceport users' operations
- Significant spaceport user-identified milestones associated with operations (e.g., facility readiness to support operations, award of certificate of occupancy, or major ground system acceptance/activation)
- Operations requiring radio frequency (RF) silence or RF restrictions
- Public affairs/media events that could reasonably be anticipated to impact spaceport users' operations



- Other operations or events that could potentially create adverse impacts to spaceport users (e.g., large quantity FireX flows in excess of 10 gallons per minute and/or flushing operations using potable water, any water tower fills, large electrical loading/power usage, non-standard or off-nominal infrastructure usage/modification).

NASA KSC manages the Multi-user Spaceport Conflict Resolution Board (MSCRB) Process. This process is in place for when conflicts arise for use of critical resources and in instances where clears for hazardous operations overlap. The methodology below is followed and the team is committed to a timely response to achieve de-confliction at the lowest level possible:

- Eastern Range Scheduling Office, resource provider, or hazardous operations requests will be scheduled on a first-come, first-served basis.
- An effort will be made to resolve conflicts between resource providers, requesting users, and relevant stakeholders in accordance with the resource provider's capabilities and rules along with the requestor's agreements.
- SI Customer Advocates will assist in the facilitation of an acceptable solution when necessary.
- In the event the Customer Advocates are unable to reach an acceptable resolution to the conflict, the issue will be elevated to the appropriate senior manager for the entities having the conflict (e.g., Program Manager or Launch Director) for resolution.
- As necessary, the Center Director and Commander of the U.S. Space Force (USSF) Space Launch Delta 45 (SLD 45) will have the final authority for their respective resources.

NASA KSC and PARTNER will establish a process to communicate relevant real-time information regarding emergent problems that affect each other. NASA KSC will manage the prioritization of shared assets and resolution of real-time resource conflicts if applicable. Real-time coordination during operations which impact or could reasonably be anticipated to impact KSC operations shall be done through the Spaceport Integration Center at 321-861-5050.

#### Policies Relating to Operations

Ionizing and Non-Ionizing Radiation – PARTNER use of ionizing or nonionizing radiation sources shall comply with Kennedy NASA Procedural Requirements (KNPR) 1860.1 and KNPR 1860.2 and coordinated with the Health Physics Office via the NASA KSC Technical Point of Contact.

Laser Operations - Coordinate any laser operations with the KSC Radiation Protection Officer and for any outdoor operations including operations that project above the horizon without a backstop, the NASA Agency-level Laser Safety Review Board. PARTNER shall follow NPR 1800.1 and the NASA Agency-level Laser Safety Review Board (LSRB) process for oversight of outdoor laser operations, and KSC requirements and controls for laser use as identified in KNDRP 1860.1, KSC Radiation Protection Program and KNPR 1860.2, KSC Nonionizing Radiation Protection Program. Any approved outdoor laser operations shall be listed on the KSC Spaceport Integrated Master Schedule.

Radio Frequency (RF) Operations - Prior to initial operation of any RF transmitter, PARTNER shall coordinate with the NASA KSC Technical POC to obtain a KSC RF Authorization (RFA) per KNPR 2750.1, KSC Spectrum Management Procedural Requirements, for all radio frequency transmitters to ensure compatibility with the NASA KSC Electromagnetic Environmental Effects Working Group. The information required includes but is not limited to equipment FCC ID, FCC license (if applicable), transmitter location, frequency of operation, power levels, and a point of contact for operation for the transmitter. The RFA shall be subject to Article 6 of this Lease. NASA KSC will endeavor to provide a RFA decision within two (2) weeks after receipt of all required data.

PARTNER shall follow KNPR1600.1 for security (e.g., security escorts, badging, and escorting Foreign Nationals requiring access to KSC).