

TERMS AND CONDITIONS

APPLICABLE COMMERCIAL CLAUSES

This order is for a commercial item subject to the terms and conditions of FAR 52.212-4, Contract Terms and Conditions - Commercial Products and Commercial Service (DEC 2022), incorporated by reference, FAR 52.212-5, Contract Terms and Conditions Required to Implement Statutes or Executive Orders – Commercial Products and Commercial Services (JUN 2023) attached to this order; and any additional terms and conditions checked below or included as a Center specific requirement as addenda to 52.212-4.

52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

www.ecfr.gov

<https://www.acquisition.gov/>

(End of clause)

52.203-12 LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (JUN 2020)

52.204-4 PRINTED OR COPIED DOUBLE-SIDED ON POSTCONSUMER FIBER CONTENT PAPER (MAY 2011)

52.204-13 SYSTEM FOR AWARD MANAGEMENT MAINTENANCE (OCT 2018)

52.204-18 COMMERCIAL AND GOVERNMENT ENTITY CODE MAINTENANCE (AUG 2020)

52.204-19 INCORPORATION BY REFERENCE OF REPRESENTATIONS AND CERTIFICATIONS (DEC 2014)

52.209-10 PROHIBITION ON CONTRACTING WITH INVERTED DOMESTIC CORPORATIONS (NOV 2015)

52.212-4 CONTRACT TERMS AND CONDITIONS—COMMERCIAL PRODUCTS AND COMMERCIAL SERVICES (DEC 2022)

52.232-39 UNENFORCEABILITY OF UNAUTHORIZED OBLIGATIONS (JUN 2013)

52.232-40 PROVIDING ACCELERATED PAYMENTS TO SMALL BUSINESS SUBCONTRACTORS (MAR 2023)

52.247-34 F.O.B. DESTINATION (NOV 1991)**52.212-5 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS—COMMERCIAL PRODUCTS AND COMMERCIAL SERVICES (JUN 2023)**

- (a) The Contractor shall comply with the following Federal Acquisition Regulation (FAR) clauses, which are incorporated in this contract by reference, to implement provisions of law or Executive orders applicable to acquisitions of commercial products and commercial services:
- (1) 52.203-19, Prohibition on Requiring Certain Internal Confidentiality Agreements or Statements (JAN 2017) (section 743 of Division E, Title VII, of the Consolidated and Further Continuing Appropriations Act, 2015 (Pub. L. 113-235) and its successor provisions in subsequent appropriations acts (and as extended in continuing resolutions)).
 - (2) 52.204-23, Prohibition on Contracting for Hardware, Software, and Services Developed or Provided by Kaspersky Lab and Other Covered Entities (NOV 2021) (Section 1634 of Pub. L. 115-91).
 - (3) 52.204-25, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment. (NOV 2021) (Section 889(a)(1)(A) of Pub. L. 115-232).
 - (4) 52.209-10, Prohibition on Contracting with Inverted Domestic Corporations (NOV 2015).
 - (5) 52.232-40, Providing Accelerated Payments to Small Business Subcontractors (MAR 2023) (31 U.S.C. 3903 and 10 U.S.C. 3801).
 - (6) 52.233-3, Protest After Award (AUG 1996) (31 U.S.C. 3553).
 - (7) 52.233-4, Applicable Law for Breach of Contract Claim (OCT 2004) (Public Laws 108-77 and 108-78 (19 U.S.C. 3805 note)).
- (b) The Contractor shall comply with the FAR clauses in this paragraph (b) that the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial products and commercial services:

[*Contracting Officer check as appropriate.*]

- [X] (1) 52.203-6, Restrictions on Subcontractor Sales to the Government (JUN 2020), with *Alternate I* (NOV 2021) (41 U.S.C. 4704 and 10 U.S.C. 4655).
- [] (2) 52.203-13, Contractor Code of Business Ethics and Conduct (NOV 2021) (41 U.S.C. 3509).

- ☐ (3) 52.203-15, Whistleblower Protections under the American Recovery and Reinvestment Act of 2009 (JUN 2010) (Section 1553 of Pub. L. 111-5). (Applies to contracts funded by the American Recovery and Reinvestment Act of 2009).
- ☒ (4) 52.204-10, Reporting Executive Compensation and First-Tier Subcontract Awards (JUN 2020) (Pub. L. 109-282) (31 U.S.C. 6101 note).
- ☐ (5) [Reserved]
- ☐ (6) 52.204-14, Service Contract Reporting Requirements (Oct 2016) (Pub. L. 111-117, section 743 of Div. C).
- ☐ (7) 52.204-15, Service Contract Reporting Requirements for Indefinite-Delivery Contracts (Oct 2016) (Pub. L. 111-117, section 743 of Div. C).
- ☒ (8) 52.204-27, Prohibition on a ByteDance Covered Application (JUN 2023) (Section 102 of Division R of Pub. L. 117–328).
- ☒ (9) 52.209-6, Protecting the Government’s Interest When Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment (NOV 2021) (31 U.S.C. 6101 note).
- ☐ (10) 52.209-9, Updates of Publicly Available Information Regarding Responsibility Matters (Oct 2018) (41 U.S.C. 2313).
- ☐ (11) [Reserved]
- ☐ (12) 52.219-3, Notice of HUBZone Set-Aside or Sole-Source Award (OCT 2022) (15 U.S.C. 657a).
- ☐ (13) 52.219-4, Notice of Price Evaluation Preference for HUBZone Small Business Concerns (OCT 2022) (if the offeror elects to waive the preference, it shall so indicate in its offer) (15 U.S.C. 657a).
- ☐ (14) [Reserved]
- ☒ (15)(i) 52.219-6, Notice of Total Small Business Set-Aside (NOV 2020) (15 U.S.C. 644).
- ☐ (ii) *Alternate I* (MAR 2020) of 52.219-6.
- ☐ (iii) *Alternate II* (NOV 2011).

- ☐ (16)(i) 52.219-7, Notice of Partial Small Business Set-Aside (NOV 2020) (15 U.S.C. 644).
- ☐ (ii) *Alternate I* (MAR 2020) of 52.219-7.
- ☐ (iii) *Alternate II* (MAR 2004) of 52.219-7.
- ☒ (17) 52.219-8, Utilization of Small Business Concerns (OCT 2022) (15 U.S.C. 637(d)(2) and (3)).
- ☐ (18)(i) 52.219-9, Small Business Subcontracting Plan (OCT 2022) (15 U.S.C. 637(d)(4)).
- ☐ (ii) Alternate I (Nov 2016) of 52.219-9.
- ☐ (iii) Alternate II (Nov 2016) of 52.219-9.
- ☐ (iv) Alternate III (JUN 2020) of 52.219-9.
- ☐ (v) Alternate IV (SEP 2021) of 52.219-9.
- ☐ (19)(i) 52.219-13, Notice of Set-Aside of Orders (MAR 2020) (15 U.S.C. 644(r)).
- ☐ (ii) Alternate I (MAR 2020) of 52.219-13.
- ☐ (20) 52.219-14, Limitations on Subcontracting (OCT 2022) (15 U.S.C. 657s).
- ☐ (21) 52.219-16, Liquidated Damages—Subcontracting Plan (SEP 2021) (15 U.S.C. 637(d)(4)(F)(i)).
- ☐ (22) 52.219-27, Notice of Service-Disabled Veteran-Owned Small Business Set-Aside (OCT 2022) (15 U.S.C. 657f).
- ☒ (23)(i) 52.219-28, Post-Award Small Business Program Rerepresentation (MAR 2023) (15 U.S.C. 632(a)(2)).
- ☐ (ii) Alternate I (MAR 2020) of 52.219-28.
- ☐ (24) 52.219-29, Notice of Set-Aside for, or Sole-Source Award to, Economically Disadvantaged Women-Owned Small Business Concerns (OCT 2022) (15 U.S.C. 637(m)).
- ☐ (25) 52.219-30, Notice of Set-Aside for, or Sole-Source Award to, Women-Owned Small Business Concerns Eligible Under the Women-Owned Small Business Program (OCT 2022) (15 U.S.C. 637(m)).

- ☐ (26) 52.219-32, Orders Issued Directly Under Small Business Reserves (MAR 2020) (15 U.S.C. 644(r)).
- ☐ (27) 52.219-33, Nonmanufacturer Rule (SEP 2021) (15 U.S.C. 657s).
- ☒ (28) 52.222-3, Convict Labor (JUN 2003) (E.O. 11755).
- ☒ (29) 52.222-19, Child Labor—Cooperation with Authorities and Remedies (DEC 2022) (E.O. 13126).
- ☒ (30) 52.222-21, Prohibition of Segregated Facilities (APR 2015).
- ☒ (31)(i) 52.222-26, Equal Opportunity (SEPT 2016).
- ☐ (ii) Alternate I (Feb 1999) of 52.222-26.
- ☒ (32)(i) 52.222-35, Equal Opportunity for Veterans (JUN 2020) (38 U.S.C. 4212).
- ☐ (ii) Alternate I (July 2014) of 52.222-35.
- ☒ (33)(i) 52.222-36, Equal Opportunity for Workers with Disabilities (JUN 2020) (29 U.S.C. 793).
- ☐ (ii) Alternate I (July 2014) of 52.222-36.
- ☒ (34) 52.222-37, Employment Reports on Veterans (JUN 2020) (38 U.S.C. 4212).
- ☒ (35) 52.222-40, Notification of Employee Rights Under the National Labor Relations Act (DEC 2010) (E.O. 13496).
- ☒ (36)(i) 52.222-50, Combating Trafficking in Persons (NOV 2021) (22 U.S.C. chapter 78 and E.O. 13627).
- ☐ (ii) *Alternate I* (Mar 2015) of 52.222-50 (22 U.S.C. chapter 78 and E.O. 13627).
- ☐ (37) 52.222-54, Employment Eligibility Verification (MAY 2022). (E.O. 12989). (Not applicable to the acquisition of commercially available off-the-shelf items or certain other types of commercial products or commercial services as prescribed in FAR 22.1803.)
- ☐ (38)(i) 52.223-9, Estimate of Percentage of Recovered Material Content for EPA-Designated Items (MAY 2008) (42 U.S.C. 6962(c)(3)(A)(ii)). (Not

- applicable to the acquisition of commercially available off-the-shelf items.)
- ☐ (ii) *Alternate I* (MAY 2008) of 52.223-9 (42 U.S.C. 6962(i)(2)(C)). (Not applicable to the acquisition of commercially available off-the-shelf items.)
 - ☐ (39) 52.223-11, Ozone-Depleting Substances and High Global Warming Potential Hydrofluorocarbons (June, 2016) (E.O. 13693).
 - ☐ (40) 52.223-12, Maintenance, Service, Repair, or Disposal of Refrigeration Equipment and Air Conditioners (June, 2016) (E.O. 13693).
 - ☐ (41)(i) 52.223-13, Acquisition of EPEAT® -Registered Imaging Equipment (JUN 2014) (E.O.s 13423 and 13514).
 - ☐ (ii) *Alternate I* (OCT 2015) of 52.223-13.
 - ☐ (42)(i) 52.223-14, Acquisition of EPEAT® -Registered Televisions (Jun 2014) (E.O.s 13423 and 13514).
 - ☐ (ii) *Alternate I* (Jun 2014) of 52.223-14.
 - ☐ (43) 52.223-15, Energy Efficiency in Energy-Consuming Products (MAY 2020) (42 U.S.C. 8259b).
 - ☐ (44)(i) 52.223-16, Acquisition of EPEAT® -Registered Personal Computer Products (OCT 2015) (E.O.s 13423 and 13514).
 - ☐ (ii) *Alternate I* (Jun 2014) of 52.223-16.
 - ☒ (45) 52.223-18, Encouraging Contractor Policies to Ban Text Messaging While Driving (JUN 2020) (E.O. 13513).
 - ☐ (46) 52.223-20, Aerosols (June, 2016) (E.O. 13693).
 - ☐ (47) 52.223-21, Foams (June, 2016) (E.O. 13693).
 - ☐ (48)(i) 52.224-3, Privacy Training (JAN 2017) (5 U.S.C. 552a).
 - ☐ (ii) *Alternate I* (JAN 2017) of 52.224-3.
 - ☒ (49) 52.225-1, Buy American—Supplies (OCT 2022) (41 U.S.C. chapter 83).
 - ☐ (50)(i) 52.225-3, Buy American—Free Trade Agreements—Israeli Trade Act (DEC 2022) (19 U.S.C. 3301 note, 19 U.S.C. 2112 note, 19 U.S.C. 3805

note, 19 U.S.C. 4001 note, 19 U.S.C. chapter 29 (sections 4501-4732), Public Law 103-182, 108-77, 108-78, 108-286, 108-302, 109-53, 109-169, 109-283, 110-138, 112-41, 112-42, and 112-43.

- ☐ (ii) Alternate I [Reserved].
- ☐ (iii) Alternate II (DEC 2022) of 52.225-3.
- ☐ (iv) Alternate III (JAN 2021) of 52.225-3.
- ☐ (51) 52.225-5, Trade Agreements (DEC 2022) 19 U.S.C. 2501, et seq., 19 U.S.C. 3301 note).
- ☒ (52) 52.225-13, Restrictions on Certain Foreign Purchases (FEB 2021) (E.O.'s, proclamations, and statutes administered by the Office of Foreign Assets Control of the Department of the Treasury).
- ☐ (53) 52.225-26, Contractors Performing Private Security Functions Outside the United States (Oct 2016) (Section 862, as amended, of the National Defense Authorization Act for Fiscal Year 2008; 10 U.S.C. Subtitle A, Part V, Subpart G Note).
- ☐ (54) 52.226-4, Notice of Disaster or Emergency Area Set-Aside (NOV 2007) (42 U.S.C. 5150).
- ☐ (55) 52.226-5, Restrictions on Subcontracting Outside Disaster or Emergency Area (NOV 2007) (42 U.S.C. 5150).
- ☐ (56) 52.229-12, Tax on Certain Foreign Procurements (FEB 2021).
- ☐ (57) 52.232-29, Terms for Financing of Purchases of Commercial Products and Commercial Services (NOV 2021) (41 U.S.C. 4505, 10 U.S.C. 3805).
- ☐ (58) 52.232-30, Installment Payments for Commercial Products and Commercial Services (NOV 2021) (41 U.S.C. 4505, 10 U.S.C. 3805).
- ☒ (59) 52.232-33, Payment by Electronic Funds Transfer— System for Award Management (Oct 2018) (31 U.S.C. 3332).
- ☐ (60) 52.232-34, Payment by Electronic Funds Transfer—Other than System for Award Management (JUL 2013) (31 U.S.C. 3332).
- ☐ (61) 52.232-36, Payment by Third Party (MAY 2014) (31 U.S.C. 3332).
- ☐ (62) 52.239-1, Privacy or Security Safeguards (AUG 1996) (5 U.S.C. 552a).

- ☐ (63) 52.242-5, Payments to Small Business Subcontractors (JAN 2017)(15 U.S.C. 637(d)(13)).
- ☐ (64)(i) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (NOV 2021) (46 U.S.C. 55305 and 10 U.S.C. 2631).
- ☐ (ii) Alternate I (Apr 2003) of 52.247-64.
- ☐ (iii) Alternate II (NOV 2021) of 52.247-64.

(c) The Contractor shall comply with the FAR clauses in this paragraph (c), applicable to commercial services, that the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial products and commercial services:

[Contracting Officer check as appropriate.]

- ☐ (1) 52.222-41, Service Contract Labor Standards (AUG 2018)(41 U.S.C. chapter 67).
- ☐ (2) 52.222-42, Statement of Equivalent Rates for Federal Hires (MAY 2014) (29 U.S.C. 206 and 41 U.S.C. chapter 67).
- ☐ (3) 52.222-43, Fair Labor Standards Act and Service Contract Labor Standards-Price Adjustment (Multiple Year and Option Contracts) (AUG 2018) (29 U.S.C. 206 and 41 U.S.C. chapter 67).
- ☐ (4) 52.222-44, Fair Labor Standards Act and Service Contract Labor Standards—Price Adjustment (MAY 2014) (29 U.S.C 206 and 41 U.S.C. chapter 67).
- ☐ (5) 52.222-51, Exemption from Application of the Service Contract Labor Standards to Contracts for Maintenance, Calibration, or Repair of Certain Equipment—Requirements (MAY 2014) (41 U.S.C. chapter 67).
- ☐ (6) 52.222-53, Exemption from Application of the Service Contract Labor Standards to Contracts for Certain Services—Requirements (MAY 2014) (41 U.S.C. chapter 67).
- ☐ (7) 52.222-55, Minimum Wages for Contractor Workers Under Executive Order 14026 (JAN 2022).
- ☐ (8) 52.222-62, Paid Sick Leave Under Executive Order 13706 (JAN 2022) (E.O. 13706).

- [] (9) 52.226-6, Promoting Excess Food Donation to Nonprofit Organizations (JUN 2020) (42 U.S.C. 1792).

(d) *Comptroller General Examination of Record*. The Contractor shall comply with the provisions of this paragraph (d) if this contract was awarded using other than sealed bid, is in excess of the simplified acquisition threshold, as defined in FAR 2.101, on the date of award of this contract, and does not contain the clause at 52.215-2, Audit and Records—Negotiation.

- (1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to and right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.
- (2) The Contractor shall make available at its offices at all reasonable times the records, materials, and other evidence for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the disputes clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.
- (3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of type and regardless of form. This does not require the Contractor to create or maintain any record that the Contractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(e)(1) Notwithstanding the requirements of the clauses in paragraphs (a), (b), (c), and (d) of this clause, the Contractor is not required to flow down any FAR clause, other than those in this paragraph (e)(1), in a subcontract for commercial products and commercial services. Unless otherwise indicated below, the extent of the flow down shall be as required by the clause—

- (i) 52.203-13, Contractor Code of Business Ethics and Conduct (NOV 2021) (41 U.S.C. 3509).
- (ii) 52.203-19, Prohibition on Requiring Certain Internal Confidentiality Agreements or Statements (JAN 2017) (section 743 of Division E, Title VII, of the Consolidated and Further Continuing Appropriations Act, 2015 (Pub. L. 113-235) and its successor provisions in subsequent appropriations acts (and as extended in continuing resolutions)).
- (iii) 52.204-23, Prohibition on Contracting for Hardware, Software, and Services Developed or Provided by Kaspersky Lab and Other Covered Entities (NOV 2021) (Section 1634 of Pub. L. 115-91).

- (iv) 52.204-25, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment. (NOV 2021) (Section 889(a)(1)(A) of Pub. L. 115-232).
- (v) 52.204-27, Prohibition on a ByteDance Covered Application (JUN 2023) (Section 102 of Division R of Pub. L. 117–328).
- (vi) 52.219-8, Utilization of Small Business Concerns (OCT 2022) (15 U.S.C. 637(d)(2) and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds the applicable threshold specified in FAR 19.702(a) on the date of subcontract award, the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.
- (vii) 52.222-21, Prohibition of Segregated Facilities (APR 2015).
- (viii) 52.222-26, Equal Opportunity (Sept 2016) (E.O. 11246).
- (ix) 52.222-35, Equal Opportunity for Veterans (JUN 2020) (38 U.S.C. 4212).
- (x) 52.222-36, Equal Opportunity for Workers with Disabilities (JUN 2020) (29 U.S.C. 793).
- (xi) 52.222-37, Employment Reports on Veterans (JUN 2020) (38 U.S.C. 4212).
- (xii) 52.222-40, Notification of Employee Rights Under the National Labor Relations Act (DEC 2010) (E.O. 13496). Flow down required in accordance with paragraph (f) of FAR clause 52.222-40.
- (xiii) 52.222-41, Service Contract Labor Standards (AUG 2018)(41 U.S.C. chapter 67).
- (xiv)
 - [X] (A) 52.222-50, Combating Trafficking in Persons (NOV 2021) (22 U.S.C. chapter 78 and E.O. 13627).
 - [] (B) *Alternate I* (Mar 2015) of 52.222-50 (22 U.S.C. chapter 78 and E.O. 13627).
- (xv) 52.222-51, Exemption from Application of the Service Contract Labor Standards to Contracts for Maintenance, Calibration, or Repair of Certain Equipment—Requirements (MAY 2014) (41 U.S.C. chapter 67).
- (xvi) 52.222-53, Exemption from Application of the Service Contract Labor Standards to Contracts for Certain Services—Requirements (MAY 2014) (41 U.S.C. chapter 67).
- (xvii) 52.222-54, Employment Eligibility Verification (MAY 2022) (E. O. 12989).

(xviii) 52.222-55, Minimum Wages for Contractor Workers Under Executive Order 14026 (JAN 2022).

(xix) 52.222-62 Paid Sick Leave Under Executive Order 13706 (JAN 2022) (E.O. 13706).

(xx)(A) 52.224-3, Privacy Training (JAN 2017) (5 U.S.C. 552a).

(B) Alternate I (JAN 2017) of 52.224-3.

(xxi) 52.225-26, Contractors Performing Private Security Functions Outside the United States (Oct 2016) (Section 862, as amended, of the National Defense Authorization Act for Fiscal Year 2008; 10 U.S.C. Subtitle A, Part V, Subpart G Note).

(xxii) 52.226-6, Promoting Excess Food Donation to Nonprofit Organizations (JUN 2020) (42 U.S.C. 1792). Flow down required in accordance with paragraph (e) of FAR clause 52.226-6.

(xxiii) 52.232-40, Providing Accelerated Payments to Small Business Subcontractors (MAR 2023) (31 U.S.C. 3903 and 10 U.S.C. 3801). Flow down required in accordance with paragraph (c) of 52.232-40.

(xxiv) 52.247-64, Preference for Privately-Owned U.S. Flag Commercial Vessels (NOV 2021) (46 U.S.C. 55305 and 10 U.S.C. 2631). Flow down required in accordance with paragraph (d) of FAR clause 52.247-64.

(2) While not required, the Contractor may include in its subcontracts for commercial products and commercial services a minimal number of additional clauses necessary to satisfy its contractual obligations.

(End of clause)

1852.203-71 REQUIREMENT TO INFORM EMPLOYEES OF WHISTLEBLOWER RIGHTS (AUG 2014)

1852.215-84 OMBUDSMAN (NOV 2011)

1852.237-73 RELEASE OF SENSITIVE INFORMATION (JUN 2005)

1852.246-74 CONTRACTOR COUNTERFEIT ELECTRONIC PART DETECTION AND AVOIDANCE (SEP 2020)

1852.216-78 FIRM FIXED PRICE (DEC 1988)

The total firm fixed price of this contract is \$**TBD**.

(End of clause)

1852.225-70 EXPORT LICENSES (FEB 2000)

- (a) The Contractor shall comply with all U.S. export control laws and regulations, including the International Traffic in Arms Regulations (ITAR), 22 CFR parts 120-130, and the Export Administration Regulations (EAR), 15 CFR parts 730-799, in the performance of this contract. In the absence of available license exemptions/exceptions, the Contractor 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.
- (b) The Contractor shall be responsible for obtaining export licenses, if required, before utilizing foreign persons in the performance of this contract, including instances where the work is to be performed on-site at Marshall Space Flight Center, where the foreign person will have access to export-controlled technical data or software.
- (c) The Contractor shall be responsible for all regulatory record keeping requirements associated with the use of licenses and license exemptions/exceptions.
- (d) The Contractor shall be responsible for ensuring that the provisions of this clause apply to its subcontractors.

(End of clause)

MSFC 52.211-93 DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK/PERFORMANCE WORK STATEMENT (MAY 2019)

The Description/Specifications/Statement of Work/Performance Work Statement is located at Attachment A – Statement of Work.

(End of clause)

MSFC 52.216-91 SUPPLIES AND/OR SERVICES TO BE PROVIDED AND TYPE OF CONTRACT (JUN 2017)

- (a) The contractor shall provide all resources (except as may be expressly stated in the contract as furnished by the Government) necessary to perform and/or deliver the services in accordance with Attachment A, Statement of Work.
- (b) **This is a Firm-Fixed Price Purchase Order, in accordance with FAR Part 12, Acquisition of Commercial Products and Commercial Services, in conjunction with FAR Subpart 13.5, Simplified Procedures for Certain Commercial Products and Commercial Services.**

(End of clause)

MSFC 52.232-93 SUBMISSION OF INVOICES FOR PAYMENT (APR 2018)

- (a) The designated payment office is the NASA Shared Services Center (NSSC) located at FMD

Accounts Payable, Bldg. 1111, Jerry Hlass Road, Stennis Space Center, MS 39529.

- (b) Except for classified vouchers, the Contractor shall submit all vouchers and invoices using the steps described at NSSC's Vendor Payment information website at: <https://www.nssc.nasa.gov/vendorpayment>. Please contact the NSSC Customer Contact Center at 1-877-NSSC123 (1-877-677-2123) with any additional questions or comments.

(c) Payment requests:

- (1) An invoice shall be submitted **UPON DELIVERY**.
- (2) In addition to the requirements set forth in FAR 52.212-4(g), the following invoice back-up documentation shall be included:
 - (A) Description of goods and services delivered as part of the contract's terms and conditions, including the dates of delivery/performance.
 - (B) Progress reports, as required.
 - (C) Date goods and services were performed.
- (3) Improper invoices. The NSSC Payment Office will notify the contractor of any apparent error, defect, or impropriety in an invoice within seven calendar days of receipt by the NSSC Payment Office. Inquiries regarding requests for payment should be directed to the NSSC as specified in paragraph (b) of this section.
- (4) Other payment clauses. In addition to the requirements of this clause, the Contractor shall meet the requirements of the appropriate payment clauses in this contract when submitting payment requests.
- (5) In the event that amounts are withheld from payment in accordance with provisions of this contract, a separate payment request for the amount withheld will be required before payment for that amount may be made.

(End of clause)

SOLICITATION PROVISIONS

52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (FEB 1998)

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this/these address(es):

www.ecfr.gov

<https://www.acquisition.gov/>

(End of provision)

52.203-11 CERTIFICATION AND DISCLOSURE REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (SEP 2007)**52.204-7 SYSTEM FOR AWARD MANAGEMENT (OCT 2018)****52.204-16 COMMERCIAL AND GOVERNMENT ENTITY CODE REPORTING (AUG 2020)****52.204-17 OWNERSHIP OR CONTROL OF OFFEROR (AUG 2020)****52.204-22 ALTERNATIVE LINE ITEM PROPOSAL (JAN 2017)****52.209-2 PROHIBITION ON CONTRACTING WITH INVERTED DOMESTIC CORPORATIONS--REPRESENTATION (NOV 2015)****52.225-25 PROHIBITION ON CONTRACTING WITH ENTITIES ENGAGING IN CERTAIN ACTIVITIES OR TRANSACTIONS RELATING TO IRAN—REPRESENTATION AND CERTIFICATION (JUN 2020)****52.204-20 PREDECESSOR OF OFFEROR (AUG 2020)**

(a) *Definitions.* As used in this provision—

Commercial and Government Entity (CAGE) code means—

- (1) An identifier assigned to entities located in the United States or its outlying areas by the Defense Logistics Agency (DLA) Commercial and Government Entity (CAGE) Branch to identify a commercial or government entity by unique location; or

- (2) An identifier assigned by a member of the North Atlantic Treaty Organization (NATO) or by the NATO Support and Procurement Agency (NSPA) to entities located outside the United States and its outlying areas that the DLA Commercial and Government Entity (CAGE) Branch records and maintains in the CAGE master file. This type of code is known as a NATO CAGE (NCAGE) code.

Predecessor means an entity that is replaced by a successor and includes any predecessors of the predecessor.

Successor means an entity that has replaced a predecessor by acquiring the assets and carrying out the affairs of the predecessor under a new name (often through acquisition or merger). The term “successor” does not include new offices/divisions of the same company or a company that only changes its name. The extent of the responsibility of the successor for the liabilities of the predecessor may vary, depending on State law and specific circumstances.

- (b) The Offeror represents that it ☐ is or ☐ is not a successor to a predecessor that held a Federal contract or grant within the last three years.
- (c) If the Offeror has indicated “is” in paragraph (b) of this provision, enter the following information for all predecessors that held a Federal contract or grant within the last three years (if more than one predecessor, list in reverse chronological order):

Predecessor CAGE code: _____ (or mark “Unknown”).

Predecessor legal name: _____.

(Do not use a “doing business as” name).

(End of provision)

52.204-24 REPRESENTATION REGARDING CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT (NOV 2021)

The Offeror shall not complete the representation at paragraph (d)(1) of this provision if the Offeror has represented that it “does not provide covered telecommunications equipment or services as a part of its offered products or services to the Government in the performance of any contract, subcontract, or other contractual instrument” in paragraph (c)(1) in the provision at 52.204-26, Covered Telecommunications Equipment or Services—Representation, or in paragraph (v)(2)(i) of the provision at 52.212-3, Offeror Representations and Certifications—Commercial Products and Commercial Services. The Offeror shall not complete the representation in paragraph (d)(2) of this provision if the Offeror has represented that it “does not use covered telecommunications equipment or services, or any equipment, system, or service that uses covered telecommunications equipment or services” in paragraph (c)(2) of the provision at 52.204-26, or in paragraph (v)(2)(ii) of the provision at 52.212-3.

- (a) *Definitions.* As used in this provision-

Backhaul, covered telecommunications equipment or services, critical technology, interconnection arrangements, reasonable inquiry, roaming, and substantial or essential component have the meanings provided in the clause 52.204-25, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.

(b) *Prohibition.* (1) Section 889(a)(1)(A) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2019, from procuring or obtaining, or extending or renewing a contract to procure or obtain, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. Nothing in the prohibition shall be construed to—

(i) Prohibit the head of an executive agency from procuring with an entity to provide a service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

(ii) Cover telecommunications equipment that cannot route or redirect user data traffic or cannot permit visibility into any user data or packets that such equipment transmits or otherwise handles.

(2) Section 889(a)(1)(B) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2020, from entering into a contract or extending or renewing a contract with an entity that uses any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. This prohibition applies to the use of covered telecommunications equipment or services, regardless of whether that use is in performance of work under a Federal contract. Nothing in the prohibition shall be construed to—

(i) Prohibit the head of an executive agency from procuring with an entity to provide a service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

(ii) Cover telecommunications equipment that cannot route or redirect user data traffic or cannot permit visibility into any user data or packets that such equipment transmits or otherwise handles.

(c) *Procedures.* The Offeror shall review the list of excluded parties in the System for Award Management (SAM) (<https://www.sam.gov>) for entities excluded from receiving federal awards for “covered telecommunications equipment or services.”

(d) *Representations.* The Offeror represents that—

(1) It [] will, [] will not provide covered telecommunications equipment or services to the Government in the performance of any contract, subcontract or other contractual instrument resulting from this solicitation. The Offeror shall provide the additional disclosure information required at paragraph (e)(1) of this section if the Offeror responds “will” in paragraph (d)(1) of this section; and

(2) After conducting a reasonable inquiry, for purposes of this representation, the Offeror represents that—

It [] does, [] does not use covered telecommunications equipment or services, or use any equipment, system, or service that uses covered telecommunications equipment or services. The Offeror shall provide the additional disclosure information required at paragraph (e)(2) of this section if the Offeror responds “does” in paragraph (d)(2) of this section.

(e) *Disclosures.* (1) Disclosure for the representation in paragraph (d)(1) of this provision. If the Offeror has responded “will” in the representation in paragraph (d)(1) of this provision, the Offeror shall provide the following information as part of the offer:

(i) For covered equipment—

(A) The entity that produced the covered telecommunications equipment (include entity name, unique entity identifier, CAGE code, and whether the entity was the original equipment manufacturer (OEM) or a distributor, if known);

(B) A description of all covered telecommunications equipment offered (include brand; model number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); and

(C) Explanation of the proposed use of covered telecommunications equipment and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b)(1) of this provision.

(ii) For covered services—

(A) If the service is related to item maintenance: A description of all covered telecommunications services offered (include on the item being maintained: Brand; model number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); or

(B) If not associated with maintenance, the Product Service Code (PSC) of the service being provided; and explanation of the proposed use of covered telecommunications services and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b)(1) of this provision.

(2) Disclosure for the representation in paragraph (d)(2) of this provision. If the Offeror has responded “does” in the representation in paragraph (d)(2) of this provision, the Offeror shall provide the following information as part of the offer:

(i) For covered equipment—

- (A) The entity that produced the covered telecommunications equipment (include entity name, unique entity identifier, CAGE code, and whether the entity was the OEM or a distributor, if known);
- (B) A description of all covered telecommunications equipment offered (include brand; model number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); and
- (C) Explanation of the proposed use of covered telecommunications equipment and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b)(2) of this provision.

(ii) For covered services—

- (A) If the service is related to item maintenance: A description of all covered telecommunications services offered (include on the item being maintained: Brand; model number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); or
- (B) If not associated with maintenance, the PSC of the service being provided; and explanation of the proposed use of covered telecommunications services and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b)(2) of this provision.

(End of provision)

52.204-26 COVERED TELECOMMUNICATIONS EQUIPMENT OR SERVICES— REPRESENTATION (OCT 2020)

- (a) *Definitions.* As used in this provision, “covered telecommunications equipment or services” and “reasonable inquiry” have the meaning provided in the clause 52.204-25, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.
- (b) *Procedures.* The Offeror shall review the list of excluded parties in the System for Award Management (SAM) (<https://www.sam.gov>) for entities excluded from receiving federal awards for “covered telecommunications equipment or services”.
- (c) *Representation.* (1) The Offeror represents that it [] does, [] does not provide covered telecommunications equipment or services as a part of its offered products or services to the Government in the performance of any contract, subcontract, or other contractual instrument.

- (2) After conducting a reasonable inquiry for purposes of this representation, the offeror represents that it [] does, [] does not use covered telecommunications equipment or services, or any equipment, system, or service that uses covered telecommunications equipment or services.

(End of provision)

**52.219-1 SMALL BUSINESS PROGRAM REPRESENTATIONS (MAR 2023)
ALTERNATE I (SEP 2015)**

(a) *Definitions.* As used in this provision—

Economically disadvantaged women-owned small business (EDWOSB) concern means a small business concern that is at least 51 percent directly and unconditionally owned by, and the management and daily business operations of which are controlled by, one or more women who are citizens of the United States and who are economically disadvantaged in accordance with 13 CFR part 127, and the concern is certified by SBA or an approved third-party certifier in accordance with 13 CFR 127.300. It automatically qualifies as a women-owned small business concern eligible under the WOSB Program.

Service-disabled veteran-owned small business concern—

(1) Means a small business concern—

- (i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and
- (ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a service-disabled veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) *Service-disabled veteran* means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

Small business concern—

(1) Means a concern, including its affiliates, that is independently owned and operated, not dominant in its field of operation, and qualified as a small business under the criteria in 13 CFR part 121 and the size standard in paragraph (b) of this provision.

(2) *Affiliates*, as used in this definition, means business concerns, one of whom directly or indirectly controls or has the power to control the others, or a third party or parties control or have the power to control the others. In determining whether affiliation exists, consideration is given to all appropriate factors including common ownership, common

management, and contractual relationships. SBA determines affiliation based on the factors set forth at 13 CFR 121.103.

Small disadvantaged business concern, consistent with 13 CFR 124.1002, means a small business concern under the size standard applicable to the acquisition, that—

- (1) Is at least 51 percent unconditionally and directly owned (as defined at 13 CFR 124.105) by—
 - (i) One or more socially disadvantaged (as defined at 13 CFR 124.103) and economically disadvantaged (as defined at 13 CFR 124.104) individuals who are citizens of the United States, and
 - (ii) Each individual claiming economic disadvantage has a net worth not exceeding \$750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and
- (2) The management and daily business operations of which are controlled (as defined at 13 CFR 124.106) by individuals who meet the criteria in paragraphs (1)(i) and (ii) of this definition.

Veteran-owned small business concern means a small business concern—

- (1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and
- (2) The management and daily business operations of which are controlled by one or more veterans.

Women-owned small business concern means a small business concern—

- (1) That is at least 51 percent owned by one or more women; or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and
- (2) Whose management and daily business operations are controlled by one or more women.

Women-owned small business (WOSB) concern eligible under the WOSB Program (in accordance with 13 CFR part 127) means a small business concern that is at least 51 percent directly and unconditionally owned by, and the management and daily business operations of which are controlled by, one or more women who are citizens of the United States, and the concern is certified by SBA or an approved third-party certifier in accordance with 13 CFR 127.300.

(b)(1) The North American Industry Classification System (NAICS) code for this acquisition is 334220 *[insert NAICS code]*.

(2) The small business size standard is 1,250 *[insert size standard]*.

(3) The small business size standard for a concern that submits an offer, other than on a construction or service acquisition, but proposes to furnish an end item that it did not itself manufacture, process, or produce (i.e., nonmanufacturer), is 500 employees, or 150 employees for information technology value-added resellers under NAICS code 541519, if the acquisition—

(i) Is set aside for small business and has a value above the simplified acquisition threshold;

(ii) Uses the HUBZone price evaluation preference regardless of dollar value, unless the offeror waives the price evaluation preference; or

(iii) Is an 8(a), HUBZone, service-disabled veteran-owned, economically disadvantaged women-owned, or women-owned small business set-aside or sole-source award regardless of dollar value.

(c) *Representations.*

(1) The offeror represents as part of its offer that—

(i) It ☐ is, ☐ is not a small business concern; or

(ii) It ☐ is, ☐ is not a small business joint venture that complies with the requirements of 13 CFR 121.103(h) and 13 CFR 125.8(a) and (b). *[The offeror shall enter the name and unique entity identifier of each party to the joint venture: .]*

(2) *[Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.]* The offeror represents that it ☐ is, ☐ is not, a small disadvantaged business concern as defined in 13 CFR 124.1002.

(3) *[Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.]* The offeror represents as part of its offer that it ☐ is, ☐ is not a women-owned small business concern.

(4) *Women-owned small business (WOSB) joint venture eligible under the WOSB Program.* The offeror represents as part of its offer that it ☐ is, ☐ is not a joint venture that complies with the requirements of 13 CFR 127.506(a) through (c). *[The offeror shall enter the name and unique entity identifier of each party to the joint venture: .]*

(5) *Economically disadvantaged women-owned small business (EDWOSB) joint venture.* The offeror represents as part of its offer that it ☐ is, ☐ is not a joint venture that complies

with the requirements of 13 CFR 127.506(a) through (c). [*The offeror shall enter the name and unique entity identifier of each party to the joint venture: _.*]

(6)[*Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.*] The offeror represents as part of its offer that it ☐ is, ☐ is not a veteran-owned small business concern.

(7)[*Complete only if the offeror represented itself as a veteran-owned small business concern in paragraph (c)(6) of this provision.*] The offeror represents as part of its offer that—

(i) It ☐ is, ☐ is not a service-disabled veteran-owned small business concern; or

(ii) It ☐ is, ☐ is not a service-disabled veteran-owned joint venture that complies with the requirements of 13 CFR 125.18(b)(1) and (2). [*The offeror shall enter the name and unique entity identifier of each party to the joint venture: .*] Each service-disabled veteran-owned small business concern participating in the joint venture shall provide representation of its service-disabled veteran-owned small business concern status.

(8)[*Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.*] The offeror represents, as part of its offer, that –

(i) It ☐ is, ☐ is not a HUBZone small business concern listed, on the date of this representation, as having been certified by SBA as a HUBZone small business concern in the Dynamic Small Business Search and SAM, and will attempt to maintain an employment rate of HUBZone residents of 35 percent of its employees during performance of a HUBZone contract (see 13 CFR 126.200(e)(1)); and

(ii) It ☐ is, ☐ is not a HUBZone joint venture that complies with the requirements of 13 CFR 126.616(a) through (c). [*The offeror shall enter the name and unique entity identifier of each party to the joint venture: .*] Each HUBZone small business concern participating in the HUBZone joint venture shall provide representation of its HUBZone status.

(9)[*Complete if offeror represented itself as disadvantaged in paragraph (c)(2) of this provision.* The offeror shall check the category in which its ownership falls:

☐ Black American.

☐ Hispanic American.

☐ Native American (American Indians, Eskimos, Aleuts, or Native Hawaiians).

☐ Asian-Pacific American (persons with origins from Burma, Thailand, Malaysia, Indonesia, Singapore, Brunei, Japan, China, Taiwan, Laos, Cambodia (Kampuchea), Vietnam, Korea, The Philippines, Republic of Palau, Republic of the Marshall Islands,

Federated States of Micronesia, the Commonwealth of the Northern Mariana Islands, Guam, Samoa, Macao, Hong Kong, Fiji, Tonga, Kiribati, Tuvalu, or Nauru).

___ Subcontinent Asian (Asian-Indian) American (persons with origins from India, Pakistan, Bangladesh, Sri Lanka, Bhutan, the Maldives Islands, or Nepal).

___ Individual/concern, other than one of the preceding.

(d)*Notice.* Under 15 U.S.C. 645(d), any person who misrepresents a firm's status as a business concern that is small, HUBZone small, small disadvantaged, service-disabled veteran-owned small, economically disadvantaged women-owned small, or women-owned small eligible under the WOSB Program in order to obtain a contract to be awarded under the preference programs established pursuant to section 8, 9, 15, 31, and 36 of the Small Business Act or any other provision of Federal law that specifically references section 8(d) for a definition of program eligibility, shall —

- (1) Be punished by imposition of fine, imprisonment, or both;
- (2) Be subject to administrative remedies, including suspension and debarment; and
- (3) Be ineligible for participation in programs conducted under the authority of the Act.

(End of provision)

REPS & CERTS

52.212-3 OFFEROR REPRESENTATIONS AND CERTIFICATIONS—COMMERCIAL PRODUCTS AND COMMERCIAL SERVICES (DEC 2022) ALTERNATE I (OCT 2014)

The Offeror shall complete only paragraph (b) of this provision if the Offeror has completed the annual representations and certification electronically in the System for Award Management (SAM) accessed through <https://www.sam.gov>. If the Offeror has not completed the annual representations and certifications electronically, the Offeror shall complete only paragraphs (c) through (v) of this provision.

(a) *Definitions.* As used in this provision—

Covered telecommunications equipment or services has the meaning provided in the clause 52.204-25, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.

Economically disadvantaged women-owned small business (EDWOSB) concern means a small business concern that is at least 51 percent directly and unconditionally owned by, and the management and daily business operations of which are controlled by, one or more women who are citizens of the United States and who are economically disadvantaged in accordance with 13 CFR part 127, and the concern is certified by SBA or an approved third-party certifier in accordance with 13 CFR 127.300. It automatically qualifies as a women-owned small business eligible under the WOSB Program.

Forced or indentured child labor means all work or service—

- (1) Exacted from any person under the age of 18 under the menace of any penalty for its nonperformance and for which the worker does not offer himself voluntarily; or
- (2) Performed by any person under the age of 18 pursuant to a contract the enforcement of which can be accomplished by process or penalties.

Highest-level owner means the entity that owns or controls an immediate owner of the offeror, or that owns or controls one or more entities that control an immediate owner of the offeror. No entity owns or exercises control of the highest level owner.

Immediate owner means an entity, other than the offeror, that has direct control of the offeror. Indicators of control include, but are not limited to, one or more of the following: Ownership or interlocking management, identity of interests among family members, shared facilities and equipment, and the common use of employees.

Inverted domestic corporation means a foreign incorporated entity that meets the definition of an inverted domestic corporation under 6 U.S.C. 395(b), applied in accordance with the rules and definitions of 6 U.S.C. 395(c).

Manufactured end product means any end product in product and service codes (PSCs) 1000-9999, except—

- (1) PSC 5510, Lumber and Related Basic Wood Materials;
- (2) Product or Service Group (PSG) 87, Agricultural Supplies;
- (3) PSG 88, Live Animals;
- (4) PSG 89, Subsistence;
- (5) PSC 9410, Crude Grades of Plant Materials;
- (6) PSC 9430, Miscellaneous Crude Animal Products, Inedible;
- (7) PSC 9440, Miscellaneous Crude Agricultural and Forestry Products;
- (8) PSC 9610, Ores;
- (9) PSC 9620, Minerals, Natural and Synthetic; and
- (10) PSC 9630, Additive Metal Materials.

Place of manufacture means the place where an end product is assembled out of components, or otherwise made or processed from raw materials into the finished product that is to be provided to the Government. If a product is disassembled and reassembled, the place of reassembly is not the place of manufacture.

Predecessor means an entity that is replaced by a successor and includes any predecessors of the predecessor.

Reasonable inquiry has the meaning provided in the clause 52.204-25, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.

Restricted business operations means business operations in Sudan that include power production activities, mineral extraction activities, oil-related activities, or the production of military equipment, as those terms are defined in the Sudan Accountability and Divestment Act of 2007 (Pub. L. 110-174). Restricted business operations do not include business operations that the person (as that term is defined in Section 2 of the Sudan Accountability and Divestment Act of 2007) conducting the business can demonstrate—

- (1) Are conducted under contract directly and exclusively with the regional government of southern Sudan;

- (2) Are conducted pursuant to specific authorization from the Office of Foreign Assets Control in the Department of the Treasury, or are expressly exempted under Federal law from the requirement to be conducted under such authorization;
- (3) Consist of providing goods or services to marginalized populations of Sudan;
- (4) Consist of providing goods or services to an internationally recognized peacekeeping force or humanitarian organization;
- (5) Consist of providing goods or services that are used only to promote health or education; or
- (6) Have been voluntarily suspended.

Sensitive technology—

- (1) Means hardware, software, telecommunications equipment, or any other technology that is to be used specifically—
 - (i) To restrict the free flow of unbiased information in Iran; or
 - (ii) To disrupt, monitor, or otherwise restrict speech of the people of Iran; and
- (2) Does not include information or informational materials the export of which the President does not have the authority to regulate or prohibit pursuant to section 203(b)(3) of the International Emergency Economic Powers Act (50 U.S.C. 1702(b)(3)).

Service-disabled veteran-owned small business concern—

- (1) Means a small business concern—
 - (i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and
 - (ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a service-disabled veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.
- (2) *Service-disabled veteran* means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

Small business concern—

- (1) Means a concern, including its affiliates, that is independently owned and operated, not dominant in its field of operation, and qualified as a small business under the criteria in 13 CFR part 121 and size standards in this solicitation.

(2) *Affiliates*, as used in this definition, means business concerns, one of whom directly or indirectly controls or has the power to control the others, or a third party or parties control or have the power to control the others. In determining whether affiliation exists, consideration is given to all appropriate factors including common ownership, common management, and contractual relationships. SBA determines affiliation based on the factors set forth at 13 CFR 121.103.

Small disadvantaged business concern, consistent with 13 CFR 124.1002, means a small business concern under the size standard applicable to the acquisition, that—

- (1) Is at least 51 percent unconditionally and directly owned (as defined at 13 CFR 124.105) by—
 - (i) One or more socially disadvantaged (as defined at 13 CFR 124.103) and economically disadvantaged (as defined at 13 CFR 124.104) individuals who are citizens of the United States; and
 - (ii) Each individual claiming economic disadvantage has a net worth not exceeding \$750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and
- (2) The management and daily business operations of which are controlled (as defined at 13 CFR 124.106) by individuals, who meet the criteria in paragraphs (1)(i) and (ii) of this definition.

Subsidiary means an entity in which more than 50 percent of the entity is owned—

- (1) Directly by a parent corporation; or
- (2) Through another subsidiary of a parent corporation.

Successor means an entity that has replaced a predecessor by acquiring the assets and carrying out the affairs of the predecessor under a new name (often through acquisition or merger). The term “successor” does not include new offices/divisions of the same company or a company that only changes its name. The extent of the responsibility of the successor for the liabilities of the predecessor may vary, depending on State law and specific circumstances.

Veteran-owned small business concern means a small business concern—

- (1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and
- (2) The management and daily business operations of which are controlled by one or more veterans.

Women-owned business concern means a concern which is at least 51 percent owned by one or more women; or in the case of any publicly owned business, at least 51 percent of its stock is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

Women-owned small business concern means a small business concern—

(1) That is at least 51 percent owned by one or more women; or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and

(2) Whose management and daily business operations are controlled by one or more women.

Women-owned small business (WOSB) concern eligible under the WOSB Program (in accordance with 13 CFR part 127), means a small business concern that is at least 51 percent directly and unconditionally owned by, and the management and daily business operations of which are controlled by, one or more women who are citizens of the United States, and the concern is certified by SBA or an approved third-party certifier in accordance with 13 CFR 127.300.

(b)(1) *Annual Representations and Certifications.* Any changes provided by the Offeror in paragraph (b)(2) of this provision do not automatically change the representations and certifications in SAM.

(2) The offeror has completed the annual representations and certifications electronically in SAM accessed through <http://www.sam.gov>. After reviewing SAM information, the Offeror verifies by submission of this offer that the representations and certifications currently posted electronically at FAR 52.212-3, Offeror Representations and Certifications—Commercial Products and Commercial Services, have been entered or updated in the last 12 months, are current, accurate, complete, and applicable to this solicitation (including the business size standard(s) applicable to the NAICS code(s) referenced for this solicitation), at the time this offer is submitted and are incorporated in this offer by reference (see FAR 4.1201), except for paragraphs_____.

[Offeror to identify the applicable paragraphs at (c) through (v) of this provision that the offeror has completed for the purposes of this solicitation only, if any.]

These amended representation(s) and/or certification(s) are also incorporated in this offer and are current, accurate, and complete as of the date of this offer.

Any changes provided by the offeror are applicable to this solicitation only, and do not result in an update to the representations and certifications posted electronically on SAM.]

(c) Offerors must complete the following representations when the resulting contract is for supplies to be delivered or services to be performed in the United States or its outlying areas,

or when the contracting officer has applied part 19 in accordance with 19.000(b)(1)(ii). Check all that apply.

(1) *Small business concern.* The offeror represents as part of its offer that—

(i) It ☐ is, ☐ is not a small business concern; or

(ii) It ☐ is, ☐ is not a small business joint venture that complies with the requirements of 13 CFR 121.103(h) and 13 CFR 125.8(a) and (b). [*The offeror shall enter the name and unique entity identifier of each party to the joint venture: .*]

(2) *Veteran-owned small business concern.* [*Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.*] The offeror represents as part of its offer that it ☐ is, ☐ is not a veteran-owned small business concern.

(3) *Service-disabled veteran-owned small business concern.* [*Complete only if the offeror represented itself as a veteran-owned small business concern in paragraph (c)(2) of this provision.*] The offeror represents as part of its offer that—

(i) It ☐ is, ☐ is not a service-disabled veteran-owned small business concern; or

(ii) It ☐ is, ☐ is not a joint venture that complies with the requirements of 13 CFR 125.18(b)(1) and (2). [*The offeror shall enter the name and unique entity identifier of each party to the joint venture: .*] Each service-disabled veteran-owned small business concern participating in the joint venture shall provide representation of its service-disabled veteran-owned small business concern status.

(4) *Small disadvantaged business concern.* [*Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.*] The offeror represents that it ☐ is, ☐ is not a small disadvantaged business concern as defined in 13 CFR 124.1002.

(5) *Women-owned small business concern.* [*Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.*] The offeror represents that it ☐ is, ☐ is not a women-owned small business concern.

(6) *WOSB joint venture eligible under the WOSB Program.* The offeror represents that it ☐ is, ☐ is not a joint venture that complies with the requirements of 13 CFR 127.506(a) through (c). [*The offeror shall enter the name and unique entity identifier of each party to the joint venture: .*]

(7) *Economically disadvantaged women-owned small business (EDWOSB) joint venture.* The offeror represents that it ☐ is, ☐ is not a joint venture that complies with the requirements of 13 CFR 127.506(a) through (c). [*The offeror shall enter the name and unique entity identifier of each party to the joint venture: .*]

Note to paragraphs (c)(8) and (9): Complete paragraphs (c)(8) and (9) only if this solicitation is expected to exceed the simplified acquisition threshold.

(8) *Women-owned business concern (other than small business concern).* [Complete only if the offeror is a women-owned business concern and did not represent itself as a small business concern in paragraph (c)(1) of this provision.] The offeror represents that it ☐ is, a women-owned business concern.

(9) *Tie bid priority for labor surplus area concerns.* If this is an invitation for bid, small business offerors may identify the labor surplus areas in which costs to be incurred on account of manufacturing or production (by offeror or first-tier subcontractors) amount to more than 50 percent of the contract price:

(10) *HUBZone small business concern.* [Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.] The offeror represents, as part of its offer, that—

(i) It ☐ is, ☐ is not a HUBZone small business concern listed, on the date of this representation, as having been certified by SBA as a HUBZone small business concern in the Dynamic Small Business Search and SAM, and will attempt to maintain an employment rate of HUBZone residents of 35 percent of its employees during performance of a HUBZone contract (see 13 CFR 126.200(e)(1)); and

(ii) It ☐ is, ☐ is not a HUBZone joint venture that complies with the requirements of 13 CFR 126.616(a) through (c). [The offeror shall enter the name and unique entity identifier of each party to the joint venture: .] Each HUBZone small business concern participating in the HUBZone joint venture shall provide representation of its HUBZone status.

(11) (Complete if the offeror has represented itself as disadvantaged in paragraph (c)(4) of this provision.)

☐ Black American.

☐ Hispanic American.

☐ Native American (American Indians, Eskimos, Aleuts, or Native Hawaiians).

☐ Asian-Pacific American (persons with origins from Burma, Thailand, Malaysia, Indonesia, Singapore, Brunei, Japan, China, Taiwan, Laos, Cambodia (Kampuchea), Vietnam, Korea, The Philippines, Republic of Palau, Republic of the Marshall Islands, Federated States of Micronesia, the Commonwealth of the Northern Mariana Islands, Guam, Samoa, Macao, Hong Kong, Fiji, Tonga, Kiribati, Tuvalu, or Nauru).

Subcontinent Asian (Asian-Indian) American (persons with origins from India, Pakistan, Bangladesh, Sri Lanka, Bhutan, the Maldives Islands, or Nepal).

Individual/concern, other than one of the preceding.

(d) Representations required to implement provisions of Executive Order 11246—

(1) Previous contracts and compliance. The offeror represents that —

(i) It ☐ has, ☐ has not participated in a previous contract or subcontract subject to the Equal Opportunity clause of this solicitation; and

(ii) It ☐ has, ☐ has not filed all required compliance reports.

(2) Affirmative Action Compliance. The offeror represents that —

(i) It ☐ has developed and has on file, ☐ has not developed and does not have on file, at each establishment, affirmative action programs required by rules and regulations of the Secretary of Labor (41 CFR parts 60-1 and 60-2), or

(ii) It ☐ has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.

(e) *Certification Regarding Payments to Influence Federal Transactions (31 U.S.C. 1352).*

(Applies only if the contract is expected to exceed \$150,000.) By submission of its offer, the offeror certifies to the best of its knowledge and belief that no Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress or an employee of a Member of Congress on his or her behalf in connection with the award of any resultant contract. If any registrants under the Lobbying Disclosure Act of 1995 have made a lobbying contact on behalf of the offeror with respect to this contract, the offeror shall complete and submit, with its offer, OMB Standard Form LLL, Disclosure of Lobbying Activities, to provide the name of the registrants. The offeror need not report regularly employed officers or employees of the offeror to whom payments of reasonable compensation were made.

(f) *Buy American Certificate.* (Applies only if the clause at Federal Acquisition Regulation (FAR) 52.225-1, Buy American—Supplies, is included in this solicitation.)

(1)(i) The Offeror certifies that each end product, except those listed in paragraph (f)(2) of this provision, is a domestic end product and that each domestic end product listed in paragraph (f)(3) of this provision contains a critical component.

(ii) The Offeror shall list as foreign end products those end products manufactured in the United States that do not qualify as domestic end products.

(iii) The terms “domestic end product,” “end product,” “foreign end product,” and “United States” are defined in the clause of this solicitation entitled “Buy American-Supplies.”

(2) Foreign End Products:

Line item No.	Country of origin

[List as necessary]

(3) The Government will evaluate offers in accordance with the policies and procedures of FAR Part 25.

(g)(1) *Buy American—Free Trade Agreements—Israeli Trade Act Certificate.* (Applies only if the clause at FAR 52.225-3, Buy American—Free Trade Agreements—Israeli Trade Act, is included in this solicitation.)

(i)(A) The Offeror certifies that each end product, except those listed in paragraph (g)(1)(ii) or (iii) of this provision, is a domestic end product and that each domestic end product listed in paragraph (g)(1)(iv) of this provision contains a critical component.

(B) The terms "Bahrainian, Moroccan, Omani, Panamanian, or Peruvian end product," "commercially available off-the-shelf (COTS) item," "critical component," "domestic end product," "end product," "foreign end product," "Free Trade Agreement country," "Free Trade Agreement country end product," "Israeli end product," and "United States" are defined in the clause of this solicitation entitled "Buy American-Free Trade Agreements-Israeli Trade Act."

(ii) The Offeror certifies that the following supplies are Free Trade Agreement country end products (other than Bahrainian, Moroccan, Omani, Panamanian, or Peruvian end products) or Israeli end products as defined in the clause of this solicitation entitled "Buy American-Free Trade Agreements-Israeli Trade Act."

Free Trade Agreement Country End Products (Other than Bahrainian, Moroccan, Omani, Panamanian, or Peruvian End Products) or Israeli End Products:

Line item No.	Country of origin

[List as necessary]

- (iii) The Offeror shall list those supplies that are foreign end products (other than those listed in paragraph (g)(1)(ii) of this provision) as defined in the clause of this solicitation entitled "Buy American-Free Trade Agreements-Israeli Trade Act." The Offeror shall list as other foreign end products those end products manufactured in the United States that do not qualify as domestic end products. For those foreign end products that do not consist wholly or predominantly of iron or steel or a combination of both, the Offeror shall also indicate whether these foreign end products exceed 55 percent domestic content, except for those that are COTS items. If the percentage of the domestic content is unknown, select "no".

Other Foreign End Products:

Line item No.	Country of origin	Exceeds 55% domestic content (yes/no)

[List as necessary]

- (iv) The Offeror shall list the line item numbers of domestic end products that contain a critical component (see FAR 25.105).

Line Item No. ____

[List as necessary]

- (v) The Government will evaluate offers in accordance with the policies and procedures of FAR part 25.

- (2) *Buy American—Free Trade Agreements—Israeli Trade Act Certificate, Alternate II.* If *Alternate II* to the clause at FAR 52.225-3 is included in this solicitation, substitute the following paragraph (g)(1)(ii) for paragraph (g)(1)(ii) of the basic provision:

- (g)(1)(ii) The offeror certifies that the following supplies are Israeli end products as defined in the clause of this solicitation entitled "Buy American—Free Trade Agreements—Israeli Trade Act":

Israeli End Products:

Line item No.

[List as necessary]

- (3) *Buy American—Free Trade Agreements—Israeli Trade Act Certificate, Alternate III.* If Alternate III to the clause at FAR 52.225-3 is included in this solicitation, substitute the following paragraph (g)(1)(ii) for paragraph (g)(1)(ii) of the basic provision:

- (g)(1)(ii) The offeror certifies that the following supplies are Free Trade Agreement country end products (other than Bahrainian, Korean, Moroccan, Omani, Panamanian, or Peruvian end products) or Israeli end products as defined in the clause of this solicitation entitled "Buy American-Free Trade Agreements-Israeli Trade Act":

Free Trade Agreement Country End Products (Other than Bahrainian, Korean, Moroccan, Omani, Panamanian, or Peruvian End Products) or Israeli End Products:

Line item No.	Country of origin

[List as necessary]

- (4) *Trade Agreements Certificate.* (Applies only if the clause at FAR 52.225-5, Trade Agreements, is included in this solicitation.)

- (i) The offeror certifies that each end product, except those listed in paragraph (g)(5)(ii) of this provision, is a U.S.-made or designated country end product, as defined in the clause of this solicitation entitled "Trade Agreements".
- (ii) The offeror shall list as other end products those end products that are not U.S.-made or designated country end products.

Other End Products:

Line item No.	Country of origin

[List as necessary]

- (iii) The Government will evaluate offers in accordance with the policies and procedures of FAR Part 25. For line items covered by the WTO GPA, the Government will evaluate offers of U.S.-made or designated country end products without regard to the restrictions of the Buy American statute. The Government will consider for award only offers of U.S.-made or designated country end products unless the Contracting Officer determines that there are no offers for such products or that the offers for such products are insufficient to fulfill the requirements of the solicitation.
- (h) *Certification Regarding Responsibility Matters (Executive Order 12689)*. (Applies only if the contract value is expected to exceed the simplified acquisition threshold.) The offeror certifies, to the best of its knowledge and belief, that the offeror and/or any of its principals—
- (1) ☐ Are, ☐ are not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;
 - (2) ☐ Have, ☐ have not, within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: Commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a Federal, state or local government contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or Commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, violating Federal criminal tax laws, or receiving stolen property,
 - (3) ☐ Are, ☐ are not presently indicted for, or otherwise criminally or civilly charged by a Government entity with, commission of any of these offenses enumerated in paragraph (h)(2) of this clause; and
 - (4) ☐ Have, ☐ have not, within a three-year period preceding this offer, been notified of any delinquent Federal taxes in an amount that exceeds the threshold at 9.104-5(a)(2) for which the liability remains unsatisfied.
- (i) Taxes are considered delinquent if both of the following criteria apply:
- (A) *The tax liability is finally determined.* The liability is finally determined if it has been assessed. A liability is not finally determined if there is a pending administrative or judicial challenge. In the case of a judicial challenge to the liability, the liability is not finally determined until all judicial appeal rights have been exhausted.
 - (B) *The taxpayer is delinquent in making payment.* A taxpayer is delinquent if the taxpayer has failed to pay the tax liability when full payment was due and required. A taxpayer is not delinquent in cases where enforced collection action is precluded.
- (ii) *Examples.* (A) The taxpayer has received a statutory notice of deficiency, under I.R.C. §6212, which entitles the taxpayer to seek Tax Court review of a proposed tax deficiency. This is not a delinquent tax because it is not a final tax liability. Should the taxpayer seek Tax

Court review, this will not be a final tax liability until the taxpayer has exercised all judicial appeal rights.

(B) The IRS has filed a notice of Federal tax lien with respect to an assessed tax liability, and the taxpayer has been issued a notice under I.R.C. §6320 entitling the taxpayer to request a hearing with the IRS Office of Appeals contesting the lien filing, and to further appeal to the Tax Court if the IRS determines to sustain the lien filing. In the course of the hearing, the taxpayer is entitled to contest the underlying tax liability because the taxpayer has had no prior opportunity to contest the liability. This is not a delinquent tax because it is not a final tax liability. Should the taxpayer seek tax court review, this will not be a final tax liability until the taxpayer has exercised all judicial appeal rights.

(C) The taxpayer has entered into an installment agreement pursuant to I.R.C. §6159. The taxpayer is making timely payments and is in full compliance with the agreement terms. The taxpayer is not delinquent because the taxpayer is not currently required to make full payment.

(D) The taxpayer has filed for bankruptcy protection. The taxpayer is not delinquent because enforced collection action is stayed under 11 U.S.C. 362 (the Bankruptcy Code).

(i) Certification Regarding Knowledge of Child Labor for Listed End Products (Executive Order 13126). [The Contracting Officer must list in paragraph (i)(1) any end products being acquired under this solicitation that are included in the List of Products Requiring Contractor Certification as to Forced or Indentured Child Labor, unless excluded at 22.1503(b).]

(1) Listed end products.

Listed end product

Listed countries of origin

(2) Certification. [If the Contracting Officer has identified end products and countries of origin in paragraph (i)(1) of this provision, then the offeror must certify to either (i)(2)(i) or (i)(2)(ii) by checking the appropriate block.]

☐ (i) The offeror will not supply any end product listed in paragraph (i)(1) of this provision that was mined, produced, or manufactured in the corresponding country as listed for that product.

☐ (ii) The offeror may supply an end product listed in paragraph (i)(1) of this provision that was mined, produced, or manufactured in the corresponding country as listed for that product. The offeror certifies that it has made a good faith effort to determine whether forced or indentured child labor was used to mine, produce, or

manufacture any such end product furnished under this contract. On the basis of those efforts, the offeror certifies that it is not aware of any such use of child labor.

(j) *Place of manufacture.* (Does not apply unless the solicitation is predominantly for the acquisition of manufactured end products.) For statistical purposes only, the offeror shall indicate whether the place of manufacture of the end products it expects to provide in response to this solicitation is predominantly—

(1) ☐ In the United States (Check this box if the total anticipated price of offered end products manufactured in the United States exceeds the total anticipated price of offered end products manufactured outside the United States); or

(2) ☐ Outside the United States.

(k) *Certificates regarding exemptions from the application of the Service Contract Labor Standards.* (Certification by the offeror as to its compliance with respect to the contract also constitutes its certification as to compliance by its subcontractor if it subcontracts out the exempt services.) [*The contracting officer is to check a box to indicate if paragraph (k)(1) or (k)(2) applies.*]

(1) ☐ Maintenance, calibration, or repair of certain equipment as described in FAR 22.1003-4(c)(1). The offeror ☐ does ☐ does not certify that—

(i) The items of equipment to be serviced under this contract are used regularly for other than Governmental purposes and are sold or traded by the offeror (or subcontractor in the case of an exempt subcontract) in substantial quantities to the general public in the course of normal business operations;

(ii) The services will be furnished at prices which are, or are based on, established catalog or market prices (see FAR 22.1003-4(c)(2)(ii)) for the maintenance, calibration, or repair of such equipment; and

(iii) The compensation (wage and fringe benefits) plan for all service employees performing work under the contract will be the same as that used for these employees and equivalent employees servicing the same equipment of commercial customers.

(2) ☐ Certain services as described in FAR 22.1003-4(d)(1). The offeror ☐ does ☐ does not certify that—

(i) The services under the contract are offered and sold regularly to non-Governmental customers, and are provided by the offeror (or subcontractor in the case of an exempt subcontract) to the general public in substantial quantities in the course of normal business operations;

(ii) The contract services will be furnished at prices that are, or are based on, established catalog or market prices (see FAR 22.1003-4(d)(2)(iii));

(iii) Each service employee who will perform the services under the contract will spend only a small portion of his or her time (a monthly average of less than 20 percent of the available hours on an annualized basis, or less than 20 percent of available hours during the contract period if the contract period is less than a month) servicing the Government contract; and

(iv) The compensation (wage and fringe benefits) plan for all service employees performing work under the contract is the same as that used for these employees and equivalent employees servicing commercial customers.

(3) If paragraph (k)(1) or (k)(2) of this clause applies—

(i) If the offeror does not certify to the conditions in paragraph (k)(1) or (k)(2) and the Contracting Officer did not attach a Service Contract Labor Standards wage determination to the solicitation, the offeror shall notify the Contracting Officer as soon as possible; and

(ii) The Contracting Officer may not make an award to the offeror if the offeror fails to execute the certification in paragraph (k)(1) or (k)(2) of this clause or to contact the Contracting Officer as required in paragraph (k)(3)(i) of this clause.

(1) *Taxpayer Identification Number (TIN)* (26 U.S.C. 6109, 31 U.S.C. 7701). (Not applicable if the offeror is required to provide this information to SAM to be eligible for award.)

(1) All offerors must submit the information required in paragraphs (l)(3) through (l)(5) of this provision to comply with debt collection requirements of 31 U.S.C. 7701(c) and 3325(d), reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M, and implementing regulations issued by the Internal Revenue Service (IRS).

(2) The TIN may be used by the Government to collect and report on any delinquent amounts arising out of the offeror's relationship with the Government (31 U.S.C. 7701(c)(3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the offeror's TIN.

(3) *Taxpayer Identification Number (TIN)*.

☐ TIN: _____.

☐ TIN has been applied for.

☐ TIN is not required because:

☐ Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the United

States and does not have an office or place of business or a fiscal paying agent in the United States;

☐ Offeror is an agency or instrumentality of a foreign government;

☐ Offeror is an agency or instrumentality of the Federal Government;

(4) *Type of organization.*

☐ Sole proprietorship;

☐ Partnership;

☐ Corporate entity (not tax-exempt);

☐ Corporate entity (tax-exempt);

☐ Government entity (Federal, State, or local);

☐ Foreign government;

☐ International organization per 26 CFR 1.6049-4;

☐ Other_____.

(5) *Common parent.*

☐ Offeror is not owned or controlled by a common parent;

☐ Name and TIN of common parent:

Name _____

TIN _____

(m) *Restricted business operations in Sudan.* By submission of its offer, the offeror certifies that the offeror does not conduct any restricted business operations in Sudan.

(n) *Prohibition on Contracting with Inverted Domestic Corporations—*

(1) Government agencies are not permitted to use appropriated (or otherwise made available) funds for contracts with either an inverted domestic corporation, or a subsidiary of an inverted domestic corporation, unless the exception at 9.108-2(b) applies or the requirement is waived in accordance with the procedures at 9.108-4.

(2) *Representation.* The Offeror represents that—

- (i) It ☐ is, ☐ is not an inverted domestic corporation; and
 - (ii) It ☐ is, ☐ is not a subsidiary of an inverted domestic corporation.
- (o) *Prohibition on contracting with entities engaging in certain activities or transactions relating to Iran.* (1) The offeror shall email questions concerning sensitive technology to the Department of State at CISADA106@state.gov.
- (2) *Representation and certifications.* Unless a waiver is granted or an exception applies as provided in paragraph (o)(3) of this provision, by submission of its offer, the offeror—
- (i) Represents, to the best of its knowledge and belief, that the offeror does not export any sensitive technology to the government of Iran or any entities or individuals owned or controlled by, or acting on behalf or at the direction of, the government of Iran;
 - (ii) Certifies that the offeror, or any person owned or controlled by the offeror, does not engage in any activities for which sanctions may be imposed under section 5 of the Iran Sanctions Act; and
 - (iii) Certifies that the offeror, and any person owned or controlled by the offeror, does not knowingly engage in any transaction that exceeds the threshold at FAR 25.703-2(a)(2) with Iran's Revolutionary Guard Corps or any of its officials, agents, or affiliates, the property and interests in property of which are blocked pursuant to the International Emergency Economic Powers Act (50 U.S.C. 1701 *et seq.*) (see OFAC's Specially Designated Nationals and Blocked Persons List at <https://www.treasury.gov/resource-center/sanctions/SDN-List/Pages/default.aspx>).
- (3) The representation and certification requirements of paragraph (o)(2) of this provision do not apply if—
- (i) This solicitation includes a trade agreements certification (*e.g.*, 52.212-3(g) or a comparable agency provision); and
 - (ii) The offeror has certified that all the offered products to be supplied are designated country end products.
- (p) *Ownership or Control of Offeror.* (Applies in all solicitations when there is a requirement to be registered in SAM or a requirement to have a unique entity identifier in the solicitation).
- (1) The Offeror represents that it Y has or Y does not have an immediate owner. If the Offeror has more than one immediate owner (such as a joint venture), then the Offeror shall respond to paragraph (2) and if applicable, paragraph (3) of this provision for each participant in the joint venture.
 - (2) If the Offeror indicates “has” in paragraph (p)(1) of this provision, enter the following information:

Immediate owner CAGE code:_____.

Immediate owner legal name:_____.

(Do not use a “doing business as” name)

Is the immediate owner owned or controlled by another entity: Y Yes or Y No.

- (3) If the Offeror indicates “yes” in paragraph (p)(2) of this provision, indicating that the immediate owner is owned or controlled by another entity, then enter the following information:

Highest-level owner CAGE code:_____.

Highest-level owner legal name:_____.

(Do not use a “doing business as” name)

- (q) *Representation by Corporations Regarding Delinquent Tax Liability or a Felony Conviction under any Federal Law.* (1) As required by sections 744 and 745 of Division E of the Consolidated and Further Continuing Appropriations Act, 2015 (Pub. L. 113-235), and similar provisions, if contained in subsequent appropriations acts, The Government will not enter into a contract with any corporation that—

- (i) Has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability, where the awarding agency is aware of the unpaid tax liability, unless an agency has considered suspension or debarment of the corporation and made a determination that suspension or debarment is not necessary to protect the interests of the Government; or
- (ii) Was convicted of a felony criminal violation under any Federal law within the preceding 24 months, where the awarding agency is aware of the conviction, unless an agency has considered suspension or debarment of the corporation and made a determination that this action is not necessary to protect the interests of the Government.

(2) The Offeror represents that—

- (i) It is ☐ is not ☐ a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability; and
- (ii) It is ☐ is not ☐ a corporation that was convicted of a felony criminal violation under a Federal law within the preceding 24 months.

(r) *Predecessor of Offeror*. (Applies in all solicitations that include the provision at 52.204-16, Commercial and Government Entity Code Reporting.)

(1) The Offeror represents that it Y is or Y is not a successor to a predecessor that held a Federal contract or grant within the last three years.

(2) If the Offeror has indicated “is” in paragraph (r)(1) of this provision, enter the following information for all predecessors that held a Federal contract or grant within the last three years (if more than one predecessor, list in reverse chronological order):

Predecessor CAGE code: _____ (or mark “Unknown”).

Predecessor legal name: _____.

(Do not use a “doing business as” name).

(s) [Reserved]

(t) *Public Disclosure of Greenhouse Gas Emissions and Reduction Goals*. Applies in all solicitations that require offerors to register in SAM (12.301(d)(1)).

(1) This representation shall be completed if the Offeror received \$7.5 million or more in contract awards in the prior Federal fiscal year. The representation is optional if the Offeror received less than \$7.5 million in Federal contract awards in the prior Federal fiscal year.

(2) Representation. [Offeror to check applicable block(s) in paragraph (t)(2)(i) and (ii)]. (i) The Offeror (itself or through its immediate owner or highest-level owner) [] does, [] does not publicly disclose greenhouse gas emissions, i.e., makes available on a publicly accessible Web site the results of a greenhouse gas inventory, performed in accordance with an accounting standard with publicly available and consistently applied criteria, such as the Greenhouse Gas Protocol Corporate Standard.

(ii) The Offeror (itself or through its immediate owner or highest-level owner) [] does, [] does not publicly disclose a quantitative greenhouse gas emissions reduction goal, i.e., make available on a publicly accessible Web site a target to reduce absolute emissions or emissions intensity by a specific quantity or percentage.

(iii) A publicly accessible Web site includes the Offeror’s own Web site or a recognized, third-party greenhouse gas emissions reporting program.

(3) If the Offeror checked “does” in paragraphs (t)(2)(i) or (t)(2)(ii) of this provision, respectively, the Offeror shall provide the publicly accessible Web site(s) where greenhouse gas emissions and/or reduction goals are reported.

- (u)(1) In accordance with section 743 of Division E, Title VII, of the Consolidated and Further Continuing Appropriations Act, 2015 (Pub. L. 113-235) and its successor provisions in subsequent appropriations acts (and as extended in continuing resolutions), Government agencies are not permitted to use appropriated (or otherwise made available) funds for contracts with an entity that requires employees or subcontractors of such entity seeking to report waste, fraud, or abuse to sign internal confidentiality agreements or statements prohibiting or otherwise restricting such employees or subcontractors from lawfully reporting such waste, fraud, or abuse to a designated investigative or law enforcement representative of a Federal department or agency authorized to receive such information.
- (2) The prohibition in paragraph (u)(1) of this provision does not contravene requirements applicable to Standard Form 312 (Classified Information Nondisclosure Agreement), Form 4414 (Sensitive Compartmented Information Nondisclosure Agreement), or any other form issued by a Federal department or agency governing the nondisclosure of classified information.
- (3) *Representation.* By submission of its offer, the Offeror represents that it will not require its employees or subcontractors to sign or comply with internal confidentiality agreements or statements prohibiting or otherwise restricting such employees or subcontractors from lawfully reporting waste, fraud, or abuse related to the performance of a Government contract to a designated investigative or law enforcement representative of a Federal department or agency authorized to receive such information (*e.g.*, agency Office of the Inspector General).
- (v) *Covered Telecommunications Equipment or Services—Representation.* Section 889(a)(1)(A) and section 889 (a)(1)(B) of Public Law 115-232.
- (1) The Offeror shall review the list of excluded parties in the System for Award Management (SAM) (<https://www.sam.gov>) for entities excluded from receiving federal awards for “covered telecommunications equipment or services”.
- (2) The Offeror represents that –
- (i) It ☐ does, ☐ does not provide covered telecommunications equipment or services as a part of its offered products or services to the Government in the performance of any contract, subcontract, or other contractual instrument.
- (ii) After conducting a reasonable inquiry for purposes of this representation, that it ☐ does, ☐ does not use covered telecommunications equipment or services, or any equipment, system, or service that uses covered telecommunications equipment or services.

(End of provision)

INSTRUCTIONS TO OFFERORS

52.212-1 INSTRUCTIONS TO OFFERORS—COMMERCIAL PRODUCTS AND COMMERCIAL SERVICES (MAR 2023)

- (a) *North American Industry Classification System (NAICS) code and small business size standard.* The NAICS code(s) and small business size standard(s) for this acquisition appear elsewhere in the solicitation. However, the small business size standard for a concern that submits an offer, other than on a construction or service acquisition, but proposes to furnish an end item that it did not itself manufacture, process, or produce is 500 employees, or 150 employees for information technology value-added resellers under NAICS code 541519, if the acquisition—
- (1) Is set aside for small business and has a value above the simplified acquisition threshold;
 - (2) Uses the HUBZone price evaluation preference regardless of dollar value, unless the offeror waives the price evaluation preference; or
 - (3) Is an 8(a), HUBZone, service-disabled veteran-owned, economically disadvantaged women-owned, or women-owned small business set-aside or sole-source award regardless of dollar value.
- (b) *Submission of offers.* Submit signed and dated offers to the office specified in this solicitation at or before the exact time specified in this solicitation. Offers may be submitted on the SF 1449, letterhead stationery, or as otherwise specified in the solicitation. As a minimum, offers must show —
- (1) The solicitation number;
 - (2) The time specified in the solicitation for receipt of offers;
 - (3) The name, address, and telephone number of the offeror;
 - (4) A technical description of the items being offered in sufficient detail to evaluate compliance with the requirements in the solicitation. This may include product literature, or other documents, if necessary;
 - (5) Terms of any express warranty;
 - (6) Price and any discount terms;
 - (7) “Remit to” address, if different than mailing address;
 - (8) A completed copy of the representations and certifications at Federal Acquisition Regulation (FAR) 52.212-3 (see FAR 52.212-3(b) for those representations and certifications that the offeror shall complete electronically);
 - (9) Acknowledgment of Solicitation Amendments;
 - (10) Past performance information, when included as an evaluation factor, to include recent and relevant contracts for the same or similar items and other references (including contract numbers, points of contact with telephone numbers and other relevant information); and

- (11) If the offer is not submitted on the SF 1449, include a statement specifying the extent of agreement with all terms, conditions, and provisions included in the solicitation. Offers that fail to furnish required representations or information, or reject the terms and conditions of the solicitation may be excluded from consideration.
- (c) *Period for acceptance of offers.* The offeror agrees to hold the prices in its offer firm for 30 calendar days from the date specified for receipt of offers, unless another time period is specified in an addendum to the solicitation.
- (d) *Product samples.* When required by the solicitation, product samples shall be submitted at or prior to the time specified for receipt of offers. Unless otherwise specified in this solicitation, these samples shall be submitted at no expense to the Government, and returned at the sender's request and expense, unless they are destroyed during preaward testing.
- (e) *Multiple offers.* Offerors are encouraged to submit multiple offers presenting alternative terms and conditions, including alternative line items (provided that the alternative line items are consistent with FAR subpart 4.10), or alternative commercial products or commercial services for satisfying the requirements of this solicitation. Each offer submitted will be evaluated separately.
- (f) *Late submissions, modifications, revisions, and withdrawals of offers.*
- (1) Offerors are responsible for submitting offers, and any modifications, revisions, or withdrawals, so as to reach the Government office designated in the solicitation by the time specified in the solicitation. If no time is specified in the solicitation, the time for receipt is 4:30 p.m., local time, for the designated Government office on the date that offers or revisions are due.
 - (2)(i) Any offer, modification, revision, or withdrawal of an offer received at the Government office designated in the solicitation after the exact time specified for receipt of offers is "late" and will not be considered unless it is received before award is made, the Contracting Officer determines that accepting the late offer would not unduly delay the acquisition; and—
 - (A) If it was transmitted through an electronic commerce method authorized by the solicitation, it was received at the initial point of entry to the Government infrastructure not later than 5:00 p.m. one working day prior to the date specified for receipt of offers; or
 - (B) There is acceptable evidence to establish that it was received at the Government installation designated for receipt of offers and was under the Government's control prior to the time set for receipt of offers; or
 - (C) If this solicitation is a request for proposals, it was the only proposal received.
 - (ii) However, a late modification of an otherwise successful offer, that makes its terms more favorable to the Government, will be considered at any time it is received and may be accepted.
 - (3) Acceptable evidence to establish the time of receipt at the Government installation includes the time/date stamp of that installation on the offer wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.

- (4) If an emergency or unanticipated event interrupts normal Government processes so that offers cannot be received at the Government office designated for receipt of offers by the exact time specified in the solicitation, and urgent Government requirements preclude amendment of the solicitation or other notice of an extension of the closing date, the time specified for receipt of offers will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal Government processes resume.
- (5) Offers may be withdrawn by written notice received at any time before the exact time set for receipt of offers. Oral offers in response to oral solicitations may be withdrawn orally. If the solicitation authorizes facsimile offers, offers may be withdrawn via facsimile received at any time before the exact time set for receipt of offers, subject to the conditions specified in the solicitation concerning facsimile offers. An offer may be withdrawn in person by an offeror or its authorized representative if, before the exact time set for receipt of offers, the identity of the person requesting withdrawal is established and the person signs a receipt for the offer.
- (g) *Contract award (not applicable to Invitation for Bids).* The Government intends to evaluate offers and award a contract without discussions with offerors. Therefore, the offeror's initial offer should contain the offeror's best terms from a price and technical standpoint. However, the Government reserves the right to conduct discussions if later determined by the Contracting Officer to be necessary. The Government may reject any or all offers if such action is in the public interest; accept other than the lowest offer; and waive informalities and minor irregularities in offers received.
- (h) *Multiple awards.* The Government may accept any item or group of items of an offer, unless the offeror qualifies the offer by specific limitations. Unless otherwise provided in the Schedule, offers may not be submitted for quantities less than those specified. The Government reserves the right to make an award on any item for a quantity less than the quantity offered, at the unit prices offered, unless the offeror specifies otherwise in the offer.
- (i) *Availability of requirements documents cited in the solicitation.*
- (1)(i) The GSA Index of Federal Specifications, Standards and Commercial Item Descriptions, FPMR Part 101-29, and copies of specifications, standards, and commercial item descriptions cited in this solicitation may be obtained for a fee by submitting a request to—GSA Federal Supply Service Specifications Section, Suite 8100, 470 East L'Enfant Plaza, SW, Washington, DC 20407, Telephone (202) 619-8925, Facsimile (202) 619-8978.
- (ii) If the General Services Administration, Department of Agriculture, or Department of Veterans Affairs issued this solicitation, a single copy of specifications, standards, and commercial item descriptions cited in this solicitation may be obtained free of charge by submitting a request to the addressee in paragraph (i)(1)(i) of this provision. Additional copies will be issued for a fee.
- (2) Most unclassified Defense specifications and standards may be downloaded from the following ASSIST websites:
- (i) ASSIST (<https://assist.dla.mil/online/start/>).
- (ii) Quick Search (<http://quicksearch.dla.mil/>).

- (3) Documents not available from ASSIST may be ordered from the Department of Defense Single Stock Point (DoDSSP) by—
- (i) Using the ASSIST Shopping Wizard (<https://assist.dla.mil/wizard/index.cfm>);
 - (ii) Phoning the DoDSSP Customer Service Desk (215) 697-2179, Mon-Fri, 0730 to 1600 EST; or
 - (iii) Ordering from DoDSSP, Building 4, Section D, 700 Robbins Avenue, Philadelphia, PA 19111-5094, Telephone (215) 697-2667/2179, Facsimile (215) 697-1462.
- (4) Nongovernment (voluntary) standards must be obtained from the organization responsible for their preparation, publication, or maintenance.
- (j) *Unique entity identifier.* (Applies to all offers that exceed the micro-purchase threshold, and offers at or below the micro-purchase threshold if the solicitation requires the Contractor to be registered in the System for Award Management (SAM).) The Offeror shall enter, in the block with its name and address on the cover page of its offer, the annotation “Unique Entity Identifier” followed by the unique entity identifier that identifies the Offeror’s name and address. The Offeror also shall enter its Electronic Funds Transfer (EFT) indicator, if applicable. The EFT indicator is a four-character suffix to the unique entity identifier. The suffix is assigned at the discretion of the Offeror to establish additional SAM records for identifying alternative EFT accounts (see FAR subpart 32.11) for the same entity. If the Offeror does not have a unique entity identifier, it should contact the entity designated at www.sam.gov for unique entity identifier establishment directly to obtain one. The Offeror should indicate that it is an offeror for a Government contract when contacting the entity designated at www.sam.gov for establishing the unique entity identifier.
- (k) [Reserved]
- (l) *Debriefing.* If a post-award debriefing is given to requesting offerors, the Government shall disclose the following information, if applicable:
- (1) The agency’s evaluation of the significant weak or deficient factors in the debriefed offeror’s offer.
 - (2) The overall evaluated cost or price and technical rating of the successful and the debriefed offeror and past performance information on the debriefed offeror.
 - (3) The overall ranking of all offerors, when any ranking was developed by the agency during source selection.
 - (4) A summary of the rationale for award;
 - (5) For acquisitions of commercial products, the make and model of the product to be delivered by the successful offeror.

- (6) Reasonable responses to relevant questions posed by the debriefed offeror as to whether source-selection procedures set forth in the solicitation, applicable regulations, and other applicable authorities were followed by the agency.

(End of provision)

Addendum to 52.212-1, INSTRUCTIONS TO OFFERORS—COMMERCIAL PRODUCTS AND COMMERCIAL SERVICES

A **complete offer** for the items described in the Request for Quote (RFQ)/Solicitation is due as specified in the combined synopsis/solicitation published notice.

A **complete offer** includes submission of the following:

1. Technical Capability

- a) **Technical Quotation.** The technical portion of the quotation shall address the specifications and technical requirements as provided in the Combined Synopsis/Solicitation, to include substantive information essential for a proper evaluation in determining technical viability as provided in **Attachment A - Statement of Work**. Offerors must submit product specifications which detail the following:
 - i. Capability of hardware implementation in relation to the Statement of Work.
 - ii. Proposed implementation (or existing features) that match transmission and reception capabilities as specified in the Statement of Work.
 - iii. Description of path to flight and/or heritage of hardware platform being proposed.

2. Proposed Price

- a) Offeror shall provide Firm-Fixed Price(s) for the Contract Line Items identified in **Attachment B – CLIN Structure**.

3. Other Required Information

- a) *Offeror Representations and Certifications.* Offeror shall complete FAR Provision 52.212-3 provided in full text and submit with offer **OR** confirm completion of this provision in SAM.gov.
- b) *Predecessor of Offeror.* Offeror shall complete FAR Provision 52.204-20 provided in full text and submit with offer.
- c) *Telecommunications and Video Surveillance Assertions.* Offeror shall complete FAR Provision 52.204-24 provided in full text and submit with offer.
- d) *Covered Telecommunications Equipment or Services Representation.* Offeror shall complete FAR Provision 52.204-26 provided in full text and submit with offer.
- e) *Small Business Program Representations.* Offeror shall complete FAR Provision 52.219-1 Alternate I provided in full text and submit with offer.

All contractual and technical questions must be in writing, via email, to Kimberly Lanier Lawrence at kimberly.m.lanier-lawrence@nasa.gov. Telephone questions shall not be accepted. Questions should be submitted **no later than Thursday, September 7, 2023**.

Offerors shall submit their quotes electronically to Kimberly Lanier Lawrence at kimberly.m.lanier-lawrence@nasa.gov, by **12:30 P.M. CDT, Thursday, September 19, 2023** in order to be considered for award. Submitted Quotes shall list two points of contact including name, phone number, and valid email address.

Late offers will not be accepted.

The NAICS Code for this procurement is 334220, Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing. Offeror shall be registered at www.SAM.gov and have the NAICS code listed above to be considered for award.

This procurement is a total set aside for a small business.

Delivery Location:

NASA/MSFC
Central Shipping and Receiving
Building 4631
Saturn Rd
Huntsville, AL 35812

Delivery is FOB Destination.

EVALUATION CRITERIA

52.212-2 EVALUATION—COMMERCIAL PRODUCTS AND COMMERCIAL SERVICES (NOV 2021)

- (a) The Government will award a purchase order resulting from this solicitation to the responsible offeror whose offer conforming to the solicitation will be most advantageous to the Government, price and other factors considered. The following factors shall be used to evaluate offers: 1) Technical Capability and 2) Price.

Technically acceptable means that the products meet minimum the technical requirements provided in the Statement of Work. Price will be evaluated for all Offerors whose quotations are determined to be technically acceptable. Price will be evaluated to determine that total price is consistent with the technical portion of the quotation and is a fair and reasonable overall price to the Government.

An award, if any, will be made to the responsible offeror who submits a quotation that (1) conforms to the requirements of the synopsis/solicitation; (2) that receives a rating of “Acceptable” on the Technical Capability evaluation factor and complies with the minimum requirements as stated in the SOW, as evidenced by providing a complete description of the equipment to be provided; and (3) that submits the quotation with the lowest price technically acceptable (LPTA), provided that the LPTA is determined to be fair and reasonable. The Government reserves the right to award without discussions or make no award at all depending upon (1) the quality of quotations received and (2) whether quoted prices are determined to be fair and reasonable.

- (b) *Options.* There are no Options offered under this solicitation.
- (c) A written notice of award or acceptance of an offer, mailed or otherwise furnished to the successful offeror within the time for acceptance specified in the offer, shall result in a binding contract without further action by either party. Before the offer’s specified expiration time, the Government may accept an offer (or part of an offer), whether or not there are negotiations after its receipt, unless a written notice of withdrawal is received before award.

(End of provision)

STATEMENT OF WORK

1. Objective/Requirements

To support ground testing of future surface navigation networks, this Statement Of Work (SOW) includes procurement of two navigation sensors, one transmitter and one receiver, that are compatible with the LunaNet Augmented Forward Signal (AFS) definition. These radios will be used to assess and demonstrate the ability of this signal to be used in surface beacons.

2. Characteristics, Scope, and Specs

The contractor shall perform the following duties:

- Provides two hardware elements that can be used for testing of transmission and reception of implemented navigation signal
 - Vendor can propose two identical units (that can each transmit and receiver) or individual dedicated transmission and receiver units.
 - These will be used in lab and limited outdoor testing with one unit acting as transmitter and one acting as a receiver. Initial testing will be conducted via direct hardware connection. Limited outdoor testing may be conducted, in which case external power amplification and antennas will be added.
 - Radios shall support Radio Frequency (RF) output/reception using SMA.
 - As intended, ground development hardware is acceptable, such as breadboard systems or engineering models.
 - Hardware must be derivative or compatible with vendor's existing flight platforms (i.e. common Field Programmable Gate Array (FPGA) or code-base with flight hardware).
- Implementation and utilization of LunaNet-compatible Augmented Forward Signal
 - Signal defined in LunaNet Interoperability Specification:
 - Modulations adopted will be in line with current GNSS signals, by utilizing Bi-Phase Shift Keying (BPSK) and/or Binary Offset Carrier (BOC) modulations. Two channels are foreseen, one in-phase (I) and one in quadrature phase (Q). The I-channel is intended to facilitate acquisition, navigation capabilities, and serve as a data channel. The I-channel will consist of a BPSK (1) modulation, utilizing a spreading code at 1.023 Mcps.
 - Signal shall utilize Global Positioning System (GPS) L1 C/A Code as defined in GPS-ICD-200 Section 3.2.1.3; vendor shall define Psuedo-Random Noise (PRN) Code used, it is preferred to use unallocated PRN values.
 - Note: new signal standard in work providing additional content on AFS and LunaNet Navigation Messages. The work requested herein is to simply generate the raw navigation signal and the ability to measure a received phase (with relation to an onboard signal synchronized with its clock).
 - Transmission Mode:
 - Radio shall sync the onboard code to be an input phase value to start transmission at start of a second rollover.
 - The signal shall then be modulated onto an S-Band signal as specified within the LunaNet Specification and in expected frequency ranges

(2200-2290 and 2483.5-2500MHz) for transmission and consistent with LunaNet Specification.

- Receiver Mode:
 - Radio shall be capable of receiving S-Band signals in the same band being transmitted (2200-2290, 2483.5-2500 MHz).
 - Radio shall compare the phase of an onboard generated code to that received from the transmitter to calculate a difference in phase, allowing for a representative one-way ranging measurement.
- Note: It is expected that there will be a residual time offset due to the two clocks not being synchronized. This will be addressed by controlling ground time references
- Radios shall be capable of being disciplined by external timing reference signal of either 10MHz or 10.23 MHz or 1.023 MHz Reference (per AFS-Specification)
- All units shall be controlled via RS-422 connections with 12-28V power inputs where the unit utilizes onboard power regulation, input of regulated voltages such as 3.3V or 5V are accepted.
- The Vendor shall coordinate with MSFC to schedule a product implementation and review meeting prior to shipment. After review, the hardware shall be delivered to MSFC. Delivery shall be via commercial freight or similar.
- Vendor shall provide Interface Control Document and limited documentation verifying command sequence, spectrum of transmitted signals, and verification of capability to measure phase on receiver end.
 - Note: Ability to correlate to an actual measured range will be conducted by MSFC personnel, assessing stability with various time references, and time synchronization across each unit

3. Delivery Date: No later than 1 year after order acceptance.

ATTACHMENT B, CLIN STRUCTURE

ITEM NO.	SUPPLY/SERVICE	QUANTITY	UNIT
0001	Navigation Radio with AFS Transmitter Match	1	EA
0002	Navigation Radio with AFS Receiver Match	1	EA