

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE OF PAGES 1 3	
2. AMENDMENT/MODIFICATION NO. P00005		3. EFFECTIVE DATE SEE BLOCK 16C	4. REQUISITION/PURCHASE REQ. NO. See Schedule		5. PROJECT NO. (If applicable)		
6. ISSUED BY CODE NASA Marshall Space Flight Center Office of Procurement Marshall Space Flight Center AL 35812			7. ADMINISTERED BY (If other than Item 6) CODE NASA Marshall Space Flight Center Marshall Space Flight Center AL 35812				

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and Zip Code)		(X)	9A. AMENDMENT OF SOLICITATION NO.	
SPACE X			9B. DATED (SEE ITEM 11)	
1 ROCKET RD			10A. MODIFICATION OF CONTRACT/ORDER NO.	
HAWTHORNE CA 90250-6844		X	80MSFC20C0034	
CODE 3BVL8			10B. DATED (SEE ITEM 13)	
FACILITY CODE			05/13/2020	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:
 (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment YOU desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Continuation Sheet If Applicable

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
<input type="checkbox"/>	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
<input checked="" type="checkbox"/>	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: NFS 1852.216-80 Alt II
<input type="checkbox"/>	D. OTHER (Specify type of modification and authority)
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to issuing office.	

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)

See Continuation Sheet If Applicable

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) (b) (6) Sr. Contracts Officer		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TYLER COCHRAN Contracting Officer	
15C. DATE SIGNED 3 Dec 2020		16B. UNITED STATES OF AMERICA TYLER COCHRAN <small>Digitally signed by TYLER COCHRAN Date: 2020.12.03 16:08:16 -06'00'</small> (Signature of Contracting Officer)	16C. DATE SIGNED

Previous edition unusable

NAME OF OFFEROR OR CONTRACTOR SPACEX

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>The purpose of Modification P00005 is the following:</p> <ol style="list-style-type: none"> Award Task Order 0005- HLS Appendix H, Contractor Furnished Waste Management System Design Study, under CLIN 0004 IDIQ Special Studies in the amount of (b) (4) Incorporate Government Task Agreement (GTA) titled GTA-X-MSFC-X1 for Solar Array Electrostatic Discharge Tested at MSFC, which results in a credit deduction applied against CLIN 0004 in the amount of (b) (4) CLIN 4 Value and Funding is hereby updated by the net increase amount of (b) (4) from (b) (4) to (b) (4) Obligate PR 4200745228 in the amount of (b) (4) to fully fund CLIN 0004. Extend the period of performance for the Risk Reduction Landing Leg Task Order 0003 issued under CLIN 4 from February 28, 2021 to May 31, 2021 at no additional cost to the Government. <p>As a result of the above changes, the Firm Fixed Price of this contract is increased by (b) (4) from (b) (4) to \$139,618,490.00.</p> <p>As a result of this modification, Sections B, H and J are updated as follows:</p> <p>Section B:</p> <p>NFS Clause 1852.216-78 is increased by (b) (4) from (b) (4) to \$139,618,490.00.</p> <p>MSFC Clause 52.216-92 CLIN 4 is increased by (b) (4) from (b) (4) to (b) (4). The FFP total has been increased by (b) (4) from (b) (4) to \$139,618,490.00.</p> <p>Section H:</p> <p>NFS Clause 1852.232-77 (a) from \$138,278,956.00 to \$139,618,488.00.</p> <p>Section J:</p> <p>Attachment J-7 SB Subcontract Plan Attachment J-14 - CLIN 0004 Task Order Tracker Log Incorporate Attachment J-15 Government Task Agreements (GTAs)</p>				

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
80MSFC20C0034P00005

NAME OF OFFEROR OR CONTRACTOR SPACEX

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
0004	<p>The funded through date remains unchanged at 02/28/2021.</p> <p>All other terms and conditions remain unchanged and in full force and effect.</p> <p>The Contractor hereby releases the Government from any and all liability under this contract for further equitable adjustments in relation to the incorporated Task Order.</p> <p>Base: IDIQ - Special Studies Special studies, analysis, and/or support tasks as initiated by written direction from the Contracting Officer.</p> <p>CLIN 004 is fully funded in the amount of (b) (4)</p> <p>PR 4200732189 (b) (4) PR 4200742833 (b) (4) PR 4200744205 (b) (4) PR 4200745176 (b) (4) PR 4200745228 (b) (4)</p> <p>Payment Terms: Net 30 days</p> <p>FOB: Destination</p>				(b) (4)

SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS

1852.216-78 FIRM FIXED PRICE (DEC 1988)

The total firm fixed price of this contract is \$139,618,490.

(End of clause)

MSFC 52.216-90 IDIQ CONTRACT VALUE BY PERIOD OF PERFORMANCE (MAY 2017)

The maximum potential not-to-exceed (NTE) value of the IDIQ portion of this contract (including Options) is \$250,000,000. This contract provides for performance of fixed-price indefinite-delivery indefinite-quantity (IDIQ) task/delivery orders. The NTE value shall not be exceeded without the prior written approval of the Contracting Officer.

The values for each period of performance are set forth below:

	PERIOD OF PERFORMANCE	MINIMUM VALUE	MAXIMUM VALUE
Base Contract	10 Months	\$10,000	\$100,000,000
Option A	4 Years	\$10,000	\$150,000,000

Note: Any unused IDIQ value for any period will roll over to the subsequent period.

(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 J-1, Performance Work Statement.
- (b) This is a firm fixed-price type contract with a firm fixed-price IDIQ component.
- (c) Indefinite-Delivery, Indefinite-Quantity Work

In addition to the core mission requirements delineated in Attachment F, entitled "HLS Requirements" and Attachment G, entitled "HLS Statement of Work", IDIQ effort may be required to perform HLS-related tasks such as special studies, analysis, and/or support tasks as initiated by written direction from the Contracting Officer. Content may include, but is not limited to: mission specific requirements, integration, evaluation of HLS use cases, extensibility studies of HLS technology, ground and flight interface definition, HLS emulator

definition/specifications, trade studies, and capability assessments. The Government may order IDIQ services at any time after contract start in accordance with the procedures set forth in NFS Clause 1852.216-80, "Task Ordering Procedures," Clause 52.216-18, "Ordering," and Clause 52.216-19, "Order Limitations," of this contract. In performing these services, the contractor shall provide all required necessary labor, materials, travel, and ODCs as delineated in the individual Task Order proposals based on the rates delineated in Attachment TBD, IDIQ Fully-Burdened Labor Rates.

(End of clause)

MSFC 52.216-92 MATRIX OF CONTRACT LINE ITEMS (CLINs) (OCT 2017)

The current total contract value is as specified below. To separately track the components of the value, separate CLINs have been established as follows:

CLIN	DESCRIPTION	VALUE	OPTION STATUS
001	Base: 2024 HLS Design and Development – Period of Performance: 10 Months	(b) (4)	N/A
002	Base: 2026 HLS Design – Period of Performance: 10 Months	\$1	N/A
003	Base: IDIQ for 2024 Long Lead Items – Ordering Period: 10 Months	\$1	N/A
004	Base: IDIQ for Special Studies – Ordering Period: 10 Months	(b) (4)	N/A
005	Option A: 2024 HLS DDT&E and Demonstration Mission – Period of Performance: 4 Years		Not Exercised
006	Option A: 2026 HLS Design – Period of Performance: 4 Years	\$1	Not Exercised
007	Option A: IDIQ for 2026 Long Lead Items – Ordering Period: 4 Years	\$1	Not Exercised

008	Option A: IDIQ Special Studies IDIQ – Ordering Period: 4 Years	\$10,000	Not Exercised
009	Option A: Docking System – Period of Performance: 4 Years	\$1	Not Exercised
Total Value of Base and All Exercised Options		\$139,618,490	

(End of Clause)

MSFC 52.227-91 DATA REQUIREMENTS (JUN 2017)

- (a) The contractor shall furnish all data identified and described in the data requirements list (DRL) of the data procurement document (DPD) which is attached to this contract. All expenses associated therewith are included in the estimated cost or firm fixed price of this contract, or any associated task orders if applicable.
- (b) The Government reserves the right to delay the delivery of any or all data requirements descriptions (DRDs) specified in the DRL and such right may be exercised at no increase to the estimated cost or firm fixed price of this contract or any associated task orders.
- (c) Nothing contained in this clause shall relieve the contractor from delivering data that is not identified and described in the DRL/DPD, but required under another section of this contract.
- (d) To the extent that data required to be delivered under a DRD is also required to be delivered under another section of the contract, the requirements established by both the DRD and such other contract section shall apply. In the event of a conflict between the data requirements of the DPD and another contract section, the specific contract section will take precedence.

(End of clause)

(C) Damage to U.S. Government property that is otherwise covered pursuant to the insurance required for FAA licensing.

(ii) The insurance required by paragraph (e)(i) shall be in the amount of \$100 million, or a lesser amount that is the maximum amount available in the market at reasonable cost, subject to approval by the Contracting Officer. Financial capability, if authorized by the Contracting Officer, shall be in the amount of \$100 million.

(iii) Insurance policies shall name the United States Government as an additional insured party.

(iv) The Contractor shall provide evidence of the insurance or financial capability to the Contracting Officer upon request, and such insurance or financial capability is subject to Contracting Officer approval. Once approved by the Contracting Officer, the Contractor shall not modify or cancel the insurance policy without the prior, written approval of the Contracting Officer.

(v) In the event any losses or damages are covered by insurance, the Government may, at its discretion, request that insurance proceeds be applied directly to the repair or replacement of such damage or loss, rather than paid directly to the Government. The Government may request that all insurance proceeds be made payable directly to the party making the repairs or providing a replacement. Such repair or replacement shall be to the satisfaction of the Contracting Officer. If losses or damages exceed available insurance, the Government shall have the right to prioritize the application of insurance proceeds.

(f) *Exclusion for FAA-licensed activities.* If the Contractor is required to obtain a Federal Aviation Administration (FAA) license in accordance with 51 U.S.C. 50901 et seq., for any Launch Services or Reentry Services performed under this contract, this waiver of claims shall not be applicable to activities under this contract that are subject to the FAA license.

(g) *Basis for a claim or suit.* Nothing in this clause shall be construed to create the basis for a claim or suit where none would otherwise exist.

(End of clause)

1852.232-77 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (MAR 1989)

(a) Of the total price of items 0001 through 0004, the sum of \$139,618,488 is presently available for payment and allotted to this contract. It is anticipated that from time to time additional funds will be allocated to the contract in accordance with the following schedule, until the total price of said items is allotted:

Date	Amount
TBD	\$2

SCHEDULE FOR ALLOTMENT OF FUNDS

- (b) The Contractor agrees to perform or have performed work on the items specified in paragraph (a) of this clause up to the point at which, if this contract is terminated pursuant to the Termination for Convenience of the Government clause of this contract, the total amount payable by the Government (including amounts payable for subcontracts and settlement costs) pursuant to paragraphs (f) and (g) of that clause would, in the exercise of reasonable judgment by the Contractor, approximate the total amount at the time allotted to the contract. The Contractor is not obligated to continue performance of the work beyond that point. The Government is not obligated in any event to pay or reimburse the Contractor more than the amount from time to time allotted to the contract, anything to the contrary in the Termination for Convenience of the Government clause notwithstanding.
- (c)(1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until 02/28/2021.
- (2) If funds allotted are considered by the Contractor to be inadequate to cover the work to be performed until that date, or an agreed date substituted for it, the Contractor shall notify the Contracting Officer in writing when within the next 60 days the work will reach a point at which, if the contract is terminated pursuant to the Termination for Convenience of the Government clause of this contract, the total amount payable by the Government (including amounts payable for subcontracts and settlement costs) pursuant to paragraphs (f) and (g) of that clause will approximate 75 percent of the total amount then allotted to the contract.
- (3)(i) The notice shall state the estimate when the point referred to in paragraph (c)(2) of this clause will be reached and the estimated amount of additional funds required to continue performance to the date specified in paragraph (c)(1) of this clause, or an agreed date substituted for it.
- (ii) The Contractor shall, 60 days in advance of the date specified in paragraph (c)(1) of this clause, or an agreed date substituted for it, advise the Contracting Officer in writing as to the estimated amount of additional funds required for the timely performance of the contract for a further period as may be specified in the contract or otherwise agreed to by the parties.
- (4) If, after the notification referred to in paragraph (c)(3)(ii) of this clause, additional funds are not allotted by the date specified in paragraph (c)(1) of this clause, or an agreed date substituted for it, the Contracting Officer shall, upon the Contractor's written request, terminate this contract on that date or on the date set forth in the request, whichever is later, pursuant to the Termination for Convenience of the Government clause.
- (d) When additional funds are allotted from time to time for continued performance of the work under this contract, the parties shall agree on the applicable period of contract performance to be covered by these funds. The provisions of paragraphs (b) and (c) of this clause shall apply

to these additional allotted funds and the substituted date pertaining to them, and the contract shall be modified accordingly.

- (e) If, solely by reason of the Government's failure to allot additional funds in amounts sufficient for the timely performance of this contract, the Contractor incurs additional costs or is delayed in the performance of the work under this contract, and if additional funds are allotted, an equitable adjustment shall be made in the price or prices (including appropriate target, billing, and ceiling prices where applicable) of the items to be delivered, or in the time of delivery, or both.
- (f) The Government may at any time before termination, and, with the consent of the Contractor, after notice of termination, allot additional funds for this contract.
- (g) The provisions of this clause with respect to termination shall in no way be deemed to limit the rights of the Government under the default clause of this contract. The provisions of this Limitation of Funds clause are limited to the work on and allotment of funds for the items set forth in paragraph (a) of this clause. This clause shall become inoperative upon the allotment of funds for the total price of said work except for rights and obligations then existing under this clause.
- (h) Nothing in this clause shall affect the right of the Government to terminate this contract pursuant to the Termination for Convenience of the Government clause of this contract.

(End of clause)

**1852.235-73 FINAL SCIENTIFIC AND TECHNICAL REPORTS (DEC 2006)
ALTERNATE II (DEC 2005)**

- (a) The Contractor shall submit to the Contracting Officer a final report that summarizes the results of the entire contract, including recommendations and conclusions based on the experience and results obtained. The final report should include tables, graphs, diagrams, curves, sketches, photographs, and drawings in sufficient detail to explain comprehensively the results achieved under the contract.
- (b) The final report shall be of a quality suitable for publication and shall follow the formatting and stylistic guidelines contained in NPR 2200.2, Requirements for Documentation, Approval, and Dissemination of NASA Scientific and Technical Information. Electronic formats for submission of reports should be used to the maximum extent practical. Before electronically submitting reports containing scientific and technical information (STI) that is export-controlled or limited or restricted, contact the Contracting Officer to determine the requirements to electronically transmit these forms of STI. If appropriate electronic safeguards are not available at the time of submission, a paper copy or a CD-ROM of the report shall be required. Information regarding appropriate electronic formats for final reports is available at <http://www.sti.nasa.gov> under "Publish STI—Electronic File Formats."

Section J - List of Attachments

<u>Document Name</u>	<u>Attachment No.</u>	<u>No. of Pages</u>
Statement of Work (SOW)	J-1	67
Data Procurement Document (List of Data Requirement Deliverables (DRDs))	J-2	97
Government Furnished Equipment/Property (GFE/GFP) List	J-3	RESERVED
Design and Performance Metrics Tables	J-4	8
Milestone Acceptance Criteria and Payment Schedule	J-5	1
Domestic Source Certification	J-6	1
Small Business Subcontracting plan	J-7	18
Performance Work Statement	J-8	40
Data Rights Assertion Notice	J-9	14
Organizational Conflicts of Interest	J-10	7
Project Management Plan	J-11	24
Proposal Attachments IBR	J-12	1
IDIQ Labor Rates	J-13	1
CLIN 0004 Task Order Tracker	J-14A	1
Government Task Agreements (GTAs)	J-15	2
Proposed Alternate Standards and Approaches	TBD after CBR	

Attachment J-7: Small Business

Subcontracting Plan

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Human Landing System (HLS)

Attachment J-15

Government Task Agreements (GTAs)

Human Landing System Integrated Lander
Broad Agency Announcement (BAA) APPENDIX-H-HLS Contract # 80MSFC20C0034

Current GTAs – Base Period

Task #	Task Title	Facility/Resource	Location	NASA Center	COST
GTA-X-MSFX-X1	Solar Array Electrostatic Discharge Testing	Space Environmental Effects Test Facility	Bldg. 4605 Fowler Road, Huntsville, AL, 35812, Marshall Space Flight Center (MSFC)	MSFC	(b) (4)