OMB Approval No. 2700-0042 PAGE OF PAGES AMENDMENT OF SOLICITATION 1. CONTRACT ID CODE MODIFICATION OF CONTRACT ŧ - 1 3. EFFECTIVE DATE 5 PROJECT NO. (If applicable) 2. AMENDMENT/MODIFICATION NO. 4. REQUISITION/PURCHASE REQ. NO See Block 16C 0001 7. ADMINISTERED BY (if other than item 6) CODE CODE 6. ISSUED BY NASA Lyndon B. Johnson Space Center Attn: Craig Burridge, Mail Code BG 2101 NASA Parkway Houston, Texas 77058-3696 8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State, and ZIP Code) SPACE EXPLORATION TECHNOLOGIES 1 ROCKET ROAD HAWTHORNE, CA 90250-6844 FACILITY CODE 3BVL8 CODE 9A. AMENDMENT OF SOLICITATION NO. 9B. DATED (SEE ITEM 11) 10B. DATED (SEE ITEM 13) 10A MODIFICATION OF CONTRACT/ORDER NO. 12/23/2008 NNI09GA04B 11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS The above numbered solicitation is amended as set forth in from 14. The hour and date specified for receipt of Offers 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 this following methods: copies of the amendment; (b) By acknowledging receipt of this umendment on each copy of the offer (a) 8y completing Items 8 and 15, and submitted; or (c) By separate letter or tolegram 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 cleange an offer already submitted, such change may be made by telegram or letter, provided each fullegram or letter 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) 13 THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACT S/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.(x) A. THIS CHANGE ORDER IS ISSUED FURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A. B. THE ABOVE NUMBERED CONTRACT/ORDER IS MICDIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43, 103(b). C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 43.103(a)(3) X d. OTHER (Specify type of modification and authority) E. IMPORTANT: Contractor is not. X is required to sign this document and return 14. description of amendment/modification (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Subject contract is hereby changed to delete "Proprietary and Competition Sensitive Information" from the footer of all pages of the contract, where applicable. Except as provided herein, all terms and conditions of the document retoranced in Item QA or 10A, as heretofore changed, remains unchanged and in full force and effect 16A. NAME AND THELE OF CONTRACTING OFFICER (Type or print) 15A. NAME AND TITLE OF SIGNER (Type or print) Contracting Officer Craig Burridge PICET NENT SHOWILL GLUV NUE 15C DATE SIGNED 16B. UNITED STATES OF AMERICA 16C DATE SIGNED 158. CONTRACTOR/OFFEROD 1,2/2,120x (Signature of Contracting Official) (2) and use of person authorized to sign) NSN 7640-01-152-8070 STANDARD FORM 30 (Rev. 10-83) 30-105

JSC MS Word (Aug 95)

PREVIOUS EDITION UNUSABLE

Prescribed by GSA FAR (48 CFR) 53.243

AMENDMENT OF SOLI	CITATION/MODI	FICATION OF	1. CONTRACT I D C	DODE PAGE OF PAGES	
2. AMENDMENT/MOD NO.	3. EFFECTIVE DAT	TE 4 REQUISITION	PURCHASE REQ. N	O. 5. PROJECT NO	
2. AMENDMEN I/MOD NO.	3. EFFECTIVE DAT		4200285245		
		7. ADMINISTERED		ODE	
NASA-Johnson Space Center			-		
Ann: Judy Ross, Man Code Du		2101 NASA Pky	Space Center, Attn	: Judy Ross/BO	
2101 NASA Pkwy Houston, TX 77058-3696		Houston, TX 77			
8. NAME AND ADDRESS OF CONTRA	CTOR (No. Street, Cou			NT OF SOLICITATION	
Space Exploration Technologies	,	•	NO		
Attn: Gwynne Shotwell			9B. DATED (SE	E ITEM 11)	
1 Rocket Road			The same of the sa		
Hawthorne, CA 90250-6844			(10) 10A. MOD. OF	CONTRACT/ORDER No	
			1 ' 1	J09GA04B	
CODE	FACILITY	CODE	X 10B, DATED (S	EE ITEM 13)	
-			احا		
11	THIS ITEM ONLY APP	LIES TO AMENDMENTS	OF SOLICITATIONS	WIND COMPANY	
The above numbered solicitation is amended	as set forth in Item 14. T	he hour and date specified for	receipt of Offers (IS OR	IS NOT) extended.	
Offers must acknowledge receipt of this ame methods:	ndment prior to the hour a	nd date specified in the solicit	ation or as amended, by	one of the following	
(c) By separate letter or telegram which in ACKNOWLEDGMENT TO BE RECEIVE SPECIFIED MAY RESULT IN REJECTION change may be made by telegram or letting prior to the opening hour and date specification.	DAT THE PLACE DESIG DN OF YOUR OFFER. If & er, provided each telegram ied.	NATED FOR THE RECEIPT	OF OFFERS PRIOR TO	fer already submitted, such	
		72/2011 72			
PR# 4200285245 6100.2200 72 2200 87105 FXCX22009D	6.08.05.02.01 FC000000	720N111 72	Financial Mar	nagement	
13. THIS ITEM APPLIES ONLY TO MO CONTRACT/ORDER NO. AS DESC	RIBED IN ITEM 14.				
A. THIS CHANGE ORDER IS ISSUED CONTRACT ORDER NO. IN ITEM 10.	PURSUANT TO: (Specif A.	fy authority) THE CHANGES	SET FORTH IN ITEM 14	ARE MADE IN THE	
B. THE ABOVE NUMBERED CONTRA office, appropriation date, etc.) SET FC	ACT/ORDER IS MODIFIED ORTH IN ITEM 14, PURSU	D TO REFLECT THE ADMINI JANT TO THE AUTHORITY O	STRATIVE CHANGES (8 DF FAR 43.103(b).	such as changes in paying	
C. THIS SUPPLEMENTAL AGREEME	NT IS ENTERED INTO P	URSUANT TO AUTHORITY	DF:		
D. OTHER (Specify type of modification	n and authority)	A MARKET COMMISSION AND ADDRESS		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
NFS 1852.232-77 Limitation		Price Contract) (Mar 1	1989)		
IMPORTANT: Contracto	or (is or is not) required	to sign this document and	return copies to	the issuing office.	
14. DESCRIPTION OF AMENDMENT/N matter where feasible.)	ODIFICATION (Organia	zed by UCF section headi	ngs, including solicitati	on/contract subject	
See Page 2.					
Except as provided herein, all terms and	conditions of the docur	ment referenced in Item 9/	A or 10A, as heretofore	changed, remains	
unchanged and in full force and effect. 15A. NAME AND TITLE OF SIGNER (1)	Type or print)	16A. NAME AND TI	TLE OF CONTRACTIN	IG OFFICER	
*	** *** ****	Judy F. Ross, Co			
15B. CONTRACTOR/OFFEROR		16B. UNITED STATE	S OF AMERICA	16C. DATE SIGNED	
(Signature of person authorized to sign)	1	(Signature Of	Contracting Officer)	24 Mar 2009	
NSN 7540-01-152-8970 PREVIOUS EDITION UNUSABLE		30-105		STANDARD FORM 30 (REV. 10 (3) E8	

- 1. Increase funding on this contract from (b) (4)
- Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):
 - (a) Of the total price of CLINs 0001 through 0003, the sum of (b) (4) is presently available for payment and allotted to this contract.
 - (c)(1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
- 3. Replacement pages for Section II, pages 17 and 18 are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

II.A. ADDENDUM TO FAR 52.212-4

NOTE: In accordance with paragraph (s) of FAR clause 52.212-4, any inconsistencies between FAR Clause 52.212-4 and the Addendum to FAR 52.212-4 of this solicitation or contract shall be resolved by giving precedence to the Addendum to FAR 52.212-4, except for the paragraphs listed in (s)(2).

II.A.1 ON-RAMP

- 1.1 The purpose of the Indefinite Delivery Indefinite Quantity (IDIQ) on-ramp is to provide NASA with a mechanism to recompete due to the loss of an existing ISS Commercial Resupply Services (CRS) supplier or to procure a vehicle service that is not currently being provided within the scope of this contract during the period of performance.

 NASA will determine whether those conditions are met prior to synopsizing and conducting the "On-Ramp" competition.
- 1.2 The parties mutually agree that the original solicitation, as revised, will be used as a basis to add additional awardees to the pool of existing awardee(s) to compete on future task orders. The decision to request proposals under the clause will be solely at NASA's discretion and will only occur after this requirement has been synopsized.
 - If NASA issues a solicitation notice, new and existing providers will be allowed to submit proposals within the notice's stated response time. Upon award of each additional contract, NASA shall notify all present Contractors of the award, and the new Contractor shall thenceforth be eligible to compete with all present Contractors for the award of IDIQ task orders.
- 1.3 Existing Contractors may propose services consistent with the Instruction to Offerors of the "On-Ramp" Request for Proposal, as revised. If the existing Contractor(s) chooses not to respond to the "On-Ramp" Request for Proposal, they remain as a candidate for competition of future orders under the terms of the existing contract.

(End of clause)

II.A.2 NFS 1852.232-77 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (MAR 1989)

- (a) Of the total price of CI INs 0001 through 0003, the sum of (b) (4) 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 as required by the payment schedule in Clause II.A.6, until the total price of said CLINs is allotted.
- (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 Section II, Clause 52.212-4(l), Termination for the Government's Convenience, of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor

pursuant to Clause II.A.6 and Table II.A.6-1. 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 contract Section II, Clause 52.212-4(I) notwithstanding.

- (c) Reserved.
 - (1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
 - (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 sixty (60) days the work will reach a point at which, if the contract is terminated pursuant to contract Section II, Clause 52.212-4(I) of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(I) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1.
 - (3) Reserved.
 - (i) The notice shall state the estimate when the point referred to in paragraph I(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, sixty (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 contract Section II, Clause 52.212-4(1).
- (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(s) (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 Termination for Cause clause of this contract. The provisions of this Limitation of Funds clause are limited to the work on

		····				
	AMENDMENT OF SOLICITATION/MODIFICATION OF		1 CONTRACT I D CODE P		PAGE O	F PAGE
1/67	CONTRACT		1	NNJ09GA04B	1	3
2. AMENDMENT/MOD NO.	3. EFFECTIVE DATE	4. REQUISITION	PURC	HASE REQ. NO.	5. PROJ	ECT NO
3	40 apr 2009					
NASA-Johnson Space Center		7. ADMINISTERED	BY	CODE		
Attn: Judy Ross, Mail Code Bo	G	NASA-Johnson	Space	Center, Attn: Jud	v Ross/F	ìG
2101 NASA Pkwy	_	2101 NASA Pkv	ry		, 100001	, .
Houston, TX 77058-3696	**************************************	Houston, TX 77				
8, NAME AND ADDRESS OF CONT		State and ZIP Code)		A. AMENDMENT OF	SOLICIT	ATION
Space Exploration Technologic Attn: Gwynne Shotwell	OS .		·	1Q		^
Rocket Road			9	8. DATED <i>(SEE ITEI</i>	W 11)	
Hawthorne, CA 90250-6844			(2.0)			
			(10) 1	DA. MOD. OF CONT		DER No
CODE	FACILITY COL)F	Vi	NNJ09G. OB. DATED <i>(SEE 17</i> E		
			\triangle "	VO. OATED (SEE ITE	IW 139	
1	1. THIS ITEM ONLY APPLIES	TO AMENOMENTS O	E SOLI	CITATIONS		
he above numbered solicitation is amend	ied as set forth in Hem 14. The hou	of and data appoiling for	onalnt o	COHerr AS OR IS NOT	extended.	
Offers must acknowledge receipt of this ar nethods:	mendment prior to the hour and dat	e specified in the solicital	lion or a:	s amended, by one of th	ne following	ı
(s) Ry completion Home 3 and 15 and	columbia and (4) same of the boson	dan and				
(b) By acknowledging receipt of this ar	returning one (1) copy of the amer	idment; r submilted: or				
(c) By separate letter or telegram which	h includes a reference to the solicit	stion and amendment nu	mbers.	FAILURE OF YOUR		
SPECIFIED MAY RESULT IN REJECT	VED AT THE PLACE DESIGNATED	D FOR THE RECEIPT O	FOFFE	RS PRIOR TO THE HO	UR AND D	ATE
(a) By completing items 8 and 15, and (b) By acknowledging receipt of this ar (c) By separate letter or tetegram which ACKNOWLEDGMENT TO BE RECEIN SPECIFIED MAY RESULT IN REJECT change may be made by telegram or ke prior to the opening hour and date specified.	etter, provided each telegram or let	e of this amendment you let makes reference to th	e solicita	o change an offer alread ition and this amendmen	dy submitte nt, and is n	d, such sceived
2 ACCOLUTTING AND ADDRESS	oneo.	-				
2. ACCOUNTING AND APPROPRIA	HON DATA (if required)					
			ŧ	- Inancial Managemer	nt	
3. THIS ITEM APPLIES ONLY TO M	ODIFICATIONS OF CONTRAC	TS/ORDERS, IT MOD	IFIES T	HE		
CONTRACT/ORDER NO. AS DES	SCRIBED IN ITEM 14.					
A. THIS CHANGE ORDER IS ISSUE CONTRACT ORDER NO. IN ITEM 1	D PURSUANT TO: (Specify author)	only) THE CHANGES S	ET FOR	TH IN ITEM 14 ARE MA	DE IN TH	£
CONTRACT ORDER NO. IN ITEM T	UA.					
B. THE ABOVE NUMBERED CONTR	RACT/ORDER IS MODIFIED TO R	FEI FOT THE ADMINIST	DATNE	CHANGES (Aug.		
office, appropriation date, etc.) SET F	ORTH IN ITEM 14, PURSUANT T	O THE AUTHORITY OF	FAR 43.	103(b),	nanges in p	ayung
C Time of tool to the second						
C. THIS SUPPLEMENTAL AGREEM	ENT IS ENTERED INTO PURSUA	NT TO AUTHORITY OF:				
D. OTHER (Specify type of modification	on and authorit 1					
)	en and dament,					- 1
IMPORTANT: Contract	or IS required to sign this docu	ment and return 2 con	es lo th	e issuina office		
. DESCRIPTION OF AMENDMENT/	MODIFICATION (Omanized by	LICE section handings	indud	lan entialization frances	at authina	
atter where feasible.)	nest tottlett (organized by	oor section neadings	, microu	my sonenauorveontra	ict subject	' I
						- 1
c Page 2.						- 1
						ļ
cept as provided herein, all terms and changed and in full force and effect.	conditions of the document re-	ferenced in Item 9A or	10A, as	s heretofore changed	, remains	
A. NAME AND TITLE OF SIGNER (Type or printi	A. NAME AND TITLE	OF C	MITDACTING ACEIG	En	
Steven J. Scott, Directo	AC	idy F. Ross, Contra			-ER	- 1
L CONFRACTOR/OFFERDR	118	B. UNITED STATES		THE RESERVE OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN THE PERSON NAMED IN THE PERSON NAMED IN THE PERSON NAMED IN THE PERSON NA	ATE SIGN	VED
202277	1 11 17 1	Jude d. Re	لدد	20 200		
(Signature of person authorized to sign)		Stinature Of Conti				
7543-01-152-2070 VIOUS EDITION UNUSABLE	30-108			STANDA	RO FORM 30	(REV

Modification 3 Page 2

The purpose of this modification is to make the following administrative changes to the contract:

 Change block 1, Requisition No., of Standard Form (SF) 1449, Solicitation/Contract Order for Commercial Items

FROM: (blank)

TO: 4200278694

2. Change block 3, Award/Effective Date, of SF 1449

FROM: (blank)

TO: 12/23/2008

3. Change block 18a, Payment Will Be Made By, of SF 1449

FROM: NASA-Johnson Space Center

TO:NASA Shared Services Center

Financial Management Division/LF

FMD Accounts Payable Bldg, 111, C Road

2101 NASA Parkway Houston, TX 77058

Stennis Space Center, MS 39529

4. Change block 25, Accounting and Appropriation Data, of SF 1449

FROM: (blank)

TO: PR# 4200278694;

(b) (4)

5. Change contract header text

FROM: RFP NNJ08ZBG00R Volume 1 Offer

TO: NNJ09GA04B

- 6. Delete "11/10/2008" from footer textbox
- 7. Change Clause I.A.2; PERIOD COVERED BY PROCUREMENT:

FROM: The total period of performance for this effort is January 1, 2009 through December 31, 2015.

TO: The total period of performance for this effort is December 23, 2008 through December 31, 2015.

- Delete Clause II.A.19A, OPTIONAL MISSION SUCCESS DETERMINATION, INVESTIGATION, AND CORRECTIVE ACTIONS – N/A because it does not apply to this contract.
- Change Ciause II.A.28, OMBUDSMAN ALTERNATE I (NFS 1852.215-84)
 JUN 2000) (Page 43)

Modification 3 Page 3

FROM: Lucy V. Kranz
Attn: Mail Code AC

TO: Melanie W. Saunders
Attn: Mail Code AC

2101 NASA Parkway 2101 NASA Parkway Houston, TX 77058-3696 Houston, TX 77058-3696

281-483-0490 281-483-0490

facsimile 281-483-2200 facsimile 281-483-2200

email: lucy.v.kranz@nasa.gov email: melanie.saunders-1@nasa.gov

10. Replacement pages are provided herein; SF 1449, the Table of Contents, and Sections I and II are reissued in their entirety.

11. All other terms and conditions remain unchanged and in full force and effect.

AMENDMENT OF SOLI		ATION OF	1. CONTRACT I D CODE	PAGE OF PAGES
l. cc	NTRACT			1 2
2. AMENDMENT/MOD NO.	3. EFFECTIVE DATE	4. REQUISITION/P	URCHASE REQ. NO.	5. PROJECT NO
. 4	21 apr 2009	420	0291372	
NASA-Johnson Space Center		7. ADMINISTERED B	CODE CODE	
Attn: Judy Ross, Mail Code BG	Land of the second of the seco	NASA-Johnson S	pace Center, Attn: Jud	ly Ross/BG
2101 NASA Pkwy		2101 NASA Pkw	•	
Houston, TX 77058-3696 8. NAME AND ADDRESS OF CONTRAC	TOP Me Street County	Houston, TX 770		E SOLICITATION
Space Exploration Technologies	, OK (NO, Street, County, C	state and zir code;	(9) 9A. AMENDMENT O	POCHONATION
Attn: Steven Scott			9B. DATED (SEE ITE	EM 11)
1 Rocket Road			<u> </u>	
Hawthorne, CA 90250-6844			(10) 10A. MOD. OF CON	FRACT/ORDER No
<u> </u>			NNJ090	
CODE	FACILITY COL	DE	10B, DATED (SEE IT	EM 13)
	THIS ITEM ONLY APPLIES			
The above numbered solicitation is amended Offers must acknowledge receipt of this amen methods:	as set forth in Item 14. The ho idment prior to the hour and da	ur and date specified for r te specified in the solicitat	eceipt of Offers (IS OR IS NO tion or as amended, by one of	T) extended. the following
(a) By completing Items 8 and 15, and ret (b) By acknowledging receipt of this amen (c) By separate letter or telegram which in ACKNOWLEDGMENT TO BE RECEIVED SPECIFIED MAY RESULT IN REJECTIO change may be made by telegram or lette prior to the opening hour and date specified 12. ACCOUNTING AND APPROPRIATIO	dment on each copy of the offe cludes a reference to the solicit AT THE PLACE DESIGNATE N OF YOUR OFFER. If by virt r, provided each telegram or let d.	or submitted; or lation and amendment nu ID FOR THE RECEIPT O	F OFFERS PRIOR TO THE H	eady submitted such
PR# 4200291372; (b) (4)	in bring in regulacy		Financial Managem	nent .
				- CIR
13. THIS ITEM APPLIES ONLY TO MOD CONTRACT/ORDER NO. AS DESCR		J15/ORDERS, IT MOL	JIFIES (ME	
A. THIS CHANGE ORDER IS ISSUED CONTRACT ORDER NO. IN ITEM 10A		ority) THE CHANGES S	SET FORTH IN ITEM 14 ARE	MADE IN THE
B. THE ABOVE NUMBERED CONTRA office, appropriation date, etc.) SET FO				changes in paying
C. THIS SUPPLEMENTAL AGREEMEN	IT IS ENTERED INTO PURSU	ANT TO AUTHORITY OF		
D. OTHER (Specify type of modification				
NFS 1852.232-77 Limitation	the state of the s			
	(is or is not) required to sig			
14. DESCRIPTION OF AMENDMENT/MO matter where feasible.)	ODIFICATION (Organized b	y UCF section heading	is, including solicitation/cor	itract subject
······································				
See Page 2.				
•				
Except as provided herein, all terms and o	conditions of the document i	referenced in Item 9A o	or 10A, as heretofore chang	jed, remains
unchanged and in full force and effect. 15A. NAME AND TITLE OF SIGNER (7)	pe or print)	16A. NAME AND TITL	E OF CONTRACTING OF	FICER
	1	Judy F. Ross, Cont		
158. CONTRACTOR/OFFEROR		16B. UNITED STATES	OF AMERICA 160	DATE SIGNED
(Signature of person authorized to sign)		Judy J. K		or. 2009
NSN 7540-01-152-8570 PREVIOUS EDITION UNUSABLE	30-1			NOARD FORM 39 (REV.
TREVIOUS EDITION UNUSABLE			Prescrib	IN THE CONTRACTOR

- Increase funding on this contract from (b) (4)
- Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):
 - (a) Of the total price of CLINs 0001 through 0003, the sum of (b) (4) is presently available for payment and allotted to this contract.
 - (c)(1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
- Add Attachment V.M, Special Task Assignments and Studies Sub-CLIN Schedule for CLIN 0003
- Delete Section IV, Offer Representations and Certifications/Minimum Requirements/Representations and Warranties. Section IV is still applicable to this contract, but is hereafter included with pre-award documents.
- Replacement pages for the Table of Contents; Clause II.A.2; and Section V, Attachments are provided herein.
- 6. All other terms and conditions remain unchanged and in full force and effect.

2 Model Contract: Contract Terms and Conditions

Table of Contents

1 Standard Form 1449	í
2 Model Contract: Contract Terms and Conditions	
I.A. Addendum to Standard Form 1449	
I.A.1 Schedule of Supplies and/or Services to be Provided	
I.A.2 Period Covered by Procurement	
I.A.3 Indefinite Delivery Indefinite Quantity (IDIQ), Firm Fixed Price Contract	5
I.A.4 Contract Line Items (CLINs)	5
The parties agree that the pricing and respective "Tier Range (kg)" apply to sub-CLIN's 0001 AA-AD, in CLIN 0001, regardless of the technical solution. The parties also agree	ee
that the pricing and respective mission capacity in sub-CLINs 0001 AE apply regardle	
the technical solution.	
CLIN 0001 Standard Resupply Service	
2.1.1.1 Sub-CLIN 0001AA Pressurized Upmass	
2.1.1.2 Sub-CLIN 0001AB Unpressurized Upmass	
2.1.1.3 Sub-CLIN 0001AC Return Cargo Downmass (pressurized)	
2.1.1.4 Sub-CLIN 0001AD(i) Disposal Cargo Downmass (pressurized)	
2.1.1.5 Sub-CLIN 0001AD(ii) Disposal Cargo Downmass (unpressurized)	8
2.1.1.6 Sub-CLIN 0001AE Mission Configuration Prices	
2.1.2 CLIN 0002 Non-Standard Services	
2.1.3 CLIN 0003 Special Task Assignments and Studies	
H. Contract Terms and Conditions—Commercial Items (FAR 52.212-4) (Oct 2008)	
H.A. Addendum to FAR 52.212-4	
II.A.1 On-Ramp	
II.A.3 Security for Resupply Service Payment Financing	I / 10
3.1 Requirements for payment (applicable to all CLINs).	
3.2 Security (applicable to CLIN 0001)	
3.3 Insurance (applicable to CLIN 0001).	
II.A.4 Licenses, Permits, and Other Authorizations for a Launch or Reentry Service Opera	
20	
II.A.5 Task Ordering Procedures	
5.1 Requirements for Competition	
5.2 Types of Task Orders	
Comment of the commen	
Task Assignment Task Orders 5.4 Unique Instructions For Resupply Service Task Orders	20
The state of the s	
II.A.6 Resupply Mission Payments, Milestone Events and Completion Criteria	
II.A.7 Ordering (FAR 52.216-18) (Oct 1995)	24
II.A.8 Order Limitations (FAR 52.216-19) (Oct 1995)	24
II.A.9 Indefinite Quantity (FAR 52.216-22) (Oct 1995)	25
II.A.10 Changes—Fixed Price (Deviation) (FAR 52.243-1) (Aug 1987) Alternate II	
	. 40

NNJ09GA04B

	II.A.11	Inspection of Services—Fixed Price (FAR 52.246-4) (Aug 1996)	21
	II.A.12	Preservation, Packing, Packaging, and Marking for Documentation	
	II.A.13	FAR 52.246-11 Higher Level Contract Quality Requirement (Feb 1999)	
	II.A.14	Personal Identity Verification of Contractor Personnel (FAR 52.204-9) (Sep 2	2007)
	2	8	-
	II.A.15	Place of Performance	28
	II.A.16	Export Licenses (NFS 1852.225-70) (Feb 2000)	28
	II.A.17	NASA Resupply Readiness Assessment	29
	II.A.18	NASA Insight and Approval	29
	II.A.19	Mission Success Determination, Investigation, and Corrective Actions	
	19.1	Mission Success Criteria	.,,, 31
	19.2	Mission Success Determination	31
	19.3	Procedures	32
	19.4	Final Payment for Final Mission Success Determination	32
	19.5	Investigation and Corrective Action	32
	19.6	Acceptance	33
	II.A.20	Adjustments to Mission Schedule	33
	Table	II.A.20-1: Cargo Delivery Windows	33
	II.A.21	Safety and Health (NFS 1852.223-70) (Apr 2002)	34
	II.A.22	Cross-Waiver of Liability for Space Station Activities (NFS 1852.228-76)	
		4) (Deviation)	36
	II.A.23	Small Disadvantaged Business (SDB) Participation - Contract Targets	39
	II.A.24	Minimum Requirements	40
	II.A.25	Small Business Subcontracting Goals (JSC 52.219-90) (Oct 2006)	40
	II.A.26	Liability for Government Property Furnished for Repair or Other Services	
	(Deviatio	m) (September 2007) (NFS 1852.245-72)	41
	II.A.27	Contracting Officer Technical Representative Delegation	42
	II.A.28	Clauses Incorporated by Reference (FAR 52.252-2) (Feb 1998)	42
	Federa	Acquisition Regulation (48 CFR Chapter 1)	42
	NASA	FAR Supplement (48 CFR Chapter 18) Clauses	42
	II.A.29	Use of Government Property, Facilities and Assets	43
	II.A.30	Rights in Data—General (FAR 52.227-14) (Dec 2007)	43
,	П.А.31	Key Personnel And Facilities (NFS 1852.235-71) (March 1989)	48
(Page Intent	ionally Left Blank)	50
(.	Page Intent	ionally Left Blank)	51
1.	II. Contrac	et Terms and Conditions Required to Implement Statutes or Executive Orders-	
	Commo	ercial Items (FAR 52.212-5) (OCT 2008)	52
	. Attachr	nents	57
	ttachment		58
A	ttachment		77
	Table V.E	3-1 DRDs Required near RFP Response	78
	Table V.b	3-2 Recurring DRDs.	78
	Table V.E	-3 DRDs Required Near VBR	79
	Table V.E	i-4 DRDs Required Near MIR	79
	Table V.E	-5 DRDs Required Near CIR	79
	Labic V.E	-6 DRDs Required Near Launch	80

NNJ09GA04B

C1-2: Mishap Notification, Investigation and Contingency Action Plan	. 82
C1-4: Configuration Management Plan	. 86
C1-5: Export Control Plan	
C1-7: Mission Integration and Operations Management Plan (MIOMP)	. 89
C1-8: Work Plan	
C1-10: Safety Data Package	. 93
C2-1: Formal Review Documentation	. 94
C2-2: Integrated Schedules	. 95
C3-1: Vehicle Interface Definition Document (IDD)	
C3-2: External Cargo Interface Control Agreement	. 97
C3-3: Launch Vehicle Flight Software Input for IV&V	
C3-4: Launch Vehicle Guidance, Navigation and Controls (GN&C) Input for IV&V	
C3-5: Launch Vehicle Key Systems Qualification Data	100
C4-1: Engineering Computer-Aided Design (CAD) Models	
C4-2: Initial Mission Resource Allocation Document (MRAD #1)	103
C4-3: Imagery and Associated Cataloging	105
C4-4: Internal Cargo Interface Control Agreement	
C5-1: Initial Flight Products	
C5-2: Integrated Cargo Phase III Hazard Report	
C6-1: Final Mission Resource Allocation Document (MRAD #2)1	11
C6-2: Final Flight Products	13
C6-3: Delta Integrated Cargo Hazard Report	14
C7-1: Preliminary Post Flight Assessment	
C7-2: Final Post Flight Assessment	16
Attachment V.D. Small Business and Small Disadvantaged Business Subcontracting Plan 1	17
Attachment V.E. Safety and Health Plan	18
Attachment V.F. Standard Resupply Service - Standard External Cargo Complement 1	
Attachment V.G. Personal Identity Verification (PIV) of Contractor Personnel	
Alternative for Applicants who do not have a Completed and Adjudicated NAC at the Time	of
Entrance on Duty	32
Attachment V.H. Acronyms and Abbreviations	33
Technology Readiness Level Definitions	38
Attachment V.I. Glossary	
Attachment V.J. Non-Standard Services	40
1. Coupled Loads Analysis Independent Verification and Validation (CLA IV&V) 14	40
2. Thermal Modeling IV&V	40
3. Electromagnetic Environment IV&V	40
4. Flight Design IV&V	41
5. Type I Manufacturing Process Audit	12
6. Type II Manufacturing Site Visit and Process Audit	12
7. Flight Hardware Operations and Integrated Test Processes Audit	13
8. Ishikawa Fishbone	13
9. Launch Service Complex Review	14
Attachment V.K. Government-Supplied Hardware	15
ttachment V.L. Applicable and Reference Documents	6
attachment V.M. Special Task Assignments & Studies SubCLIN Schedule for CLIN 00014	

NNJ09GA04B

		1 40
4.1	Deviations	140
12	Exceptions	148
4.2	Exceptions	145
4.3	Conditional Assumptions	170
4.3.	1 TDRSS/NISN costs	148
4.2	2 Full data rate support	148
4. 3	7 PHI DESTRIC SHOULD	

II.A. ADDENDUM TO FAR 52.212-4

NOTE: In accordance with paragraph (s) of FAR clause 52.212-4, any inconsistencies between FAR Clause 52.212-4 and the Addendum to FAR 52.212-4 of this solicitation or contract shall be resolved by giving precedence to the Addendum to FAR 52.212-4, except for the paragraphs listed in (s)(2).

II.A.1 ON-RAMP

IDIQ task orders.

- 1.1 The purpose of the Indefinite Delivery Indefinite Quantity (IDIQ) on-ramp is to provide NASA with a mechanism to recompete due to the loss of an existing ISS Commercial Resupply Services (CRS) supplier or to procure a vehicle service that is not currently being provided within the scope of this contract during the period of performance. NASA will determine whether those conditions are met prior to synopsizing and conducting the "On-Ramp" competition.
- 1.2 The parties mutually agree that the original solicitation, as revised, will be used as a basis to add additional awardees to the pool of existing awardee(s) to compete on future task orders. The decision to request proposals under the clause will be solely at NASA's discretion and will only occur after this requirement has been synopsized.
 If NASA issues a solicitation notice, new and existing providers will be allowed to submit proposals within the notice's stated response time. Upon award of each additional contract, NASA shall notify all present Contractors of the award, and the new Contractor shall thenceforth be eligible to compete with all present Contractors for the award of
- 1.3 Existing Contractors may propose services consistent with the Instruction to Offerors of the "On-Ramp" Request for Proposal, as revised. If the existing Contractor(s) chooses not to respond to the "On-Ramp" Request for Proposal, they remain as a candidate for competition of future orders under the terms of the existing contract.

(End of clause)

II.A.2 NFS 1852.232-77 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (MAR 1989)

- (a) Of the total price of CLINs 0001 through 0003, the sum of (b) (4) s 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 as required by the payment schedule in Clause II.A.6, until the total price of said CLINs is allotted.
- (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 Section II, Clause 52.212-4(l), Termination for the Government's Convenience, of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor

pursuant to Clause II.A.6 and Table II.A.6-1. 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 contract Section II, Clause 52.212-4(1) notwithstanding.

- (c) Reserved.
 - (1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
 - (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 sixty (60) days the work will reach a point at which, if the contract is terminated pursuant to contract Section II, Clause 52.212-4(l) of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1.
 - (3) Reserved,
 - (i) The notice shall state the estimate when the point referred to in paragraph I(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, sixty (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 contract Section II, Clause 52.212-4(1).
- (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(s) (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 Termination for Cause clause of this contract. The provisions of this Limitation of Funds clause are limited to the work on

Attachment V.M. SPECIAL TASK ASSIGNMENTS AND STUDIES SUB-CLIN SCHEDULE FOR CLIN 0003

This Sub-CLIN Schedule provides contract details for task orders issued under CLIN 0003.

SUB-CLIN	TASK ORDER	DATE	DESCRIPTION	PRICE
0003AA	2	4/21/2009	(b) (4	1)
			, 1.5,	
			TOTAL	(b) (4)

4 Deviations, Exceptions and Conditional Assumptions

4.1 Deviations

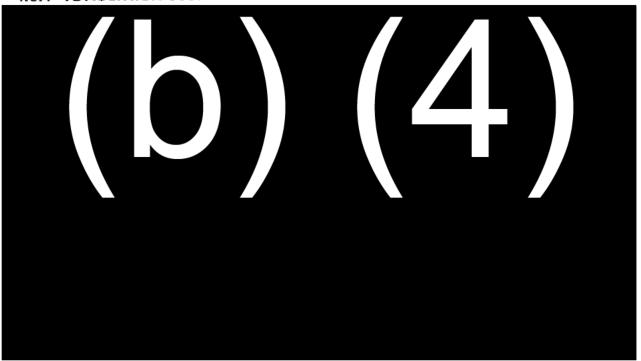
None

4.2 Exceptions

None

4.3 Conditional Assumptions

4.3.1 TDRSS/NISN costs



4.3.2 Full data rate support



AMENDMENT OF SOLIC	CITATION/MODIFIC	ATION OF	1. CONTRACT I D COD	E PAGE OF PAGES
CO	NTRACT			1 2
2. AMENDMENT/MOD NO.	3. EFFECTIVE DATE	4. REQUISITION/F	PURCHASE REQ. NO.	5. PROJECT NO
. 5	see block 16c	420	0293483	
CODE	×	7. ADMINISTERED	BY GOD	E
NASA-Johnson Space Center Attn: Judy Ross, Mail Code BG	L	NASA-Johnson S	Space Center, Attn: Ji	ady Ross/BG
2101 NASA Pkwy		2101 NASA Pkw	y	
Houston, TX 77058-3696		Houston, TX 770		
8. NAME AND ADDRESS OF CONTRAC	TOR (No. Street, County,	State and ZIP Code)	(9) 9A. AMENDMENT	OF SOLICITATION
Space Exploration Technologies			9B. DATED (SEE I	TEM 11)
Attn: Gwynne Shotwell Rocket Road			SB. DATED (SEE I	I CIVI I I)
Hawthorne, CA 90250-6844			(10) 10A, MOD. OF CO	NTPACT/OPDED No
				GA04B
	FACILITY CO		X 108. DATED (SEE	
CODE	PACILITY	JDE .	108. DATED (OLE	TTEM TO,
	THIS ITEM ONLY APPLIE	C TO AMENIDMENTS O	DE SOLICITATIONS	
The above numbered collectation is amonded	as set forth in Item 14 The h	our and date specified for	receipt of Offers (IS OR IS N	OT) extended.
Offers must acknowledge receipt of this amen methods:	dment prior to the hour and d	ate specified in the solicita	ation or as amended, by one	of the following
(b) By acknowledging receipt of this amen (c) By separate letter or telegram which in ACKNOWLEDGMENT TO BE RECEIVED SPECIFIED MAY RESULT IN REJECTIO change may be made by telegram or lette prior to the opening hour and date specifie	cludes a reference to the solid OAT THE PLACE DESIGNAT NOF YOUR OFFER. If by vir. provided each telegram or i	citation and amendment no ED FOR THE RECEIPT C	or OFFERS PRIOR TO THE	Iready submitted such
12. ACCOUNTING AND APPROPRIATIO				
PR 4200293483 (b) (4)	IN DATA (III required)			
FR 4200293483			Financial Manage	ement
13. THIS ITEM APPLIES ONLY TO MOD CONTRACT/ORDER NO. AS DESCR		ACTS/ORDERS, IT MO	DIFIES THE	
A. THIS CHANGE ORDER IS ISSUED CONTRACT ORDER NO. IN ITEM 10A		thority) THE CHANGES	SET FORTH IN ITEM 14 AR	E MADE IN THE
B. THE ABOVE NUMBERED CONTRA office, appropriation date, etc.) SET FO	CT/ORDER IS MODIFIED TO RTH IN ITEM 14, PURSUAN	REFLECT THE ADMINIS T TO THE AUTHORITY O	STRATIVE CHANGES (such F FAR 43.103(b).	es changes in paying
C. THIS SUPPLEMENTAL AGREEMEN	IT IS ENTERED INTO PURS	UANT TO AUTHORITY O	F;	
D. OTHER (Specify type of modification	and authority)			
NFS 1852.232-77 Limitation		ce Contract) (Mar 1	989)	www.powers.wo
IMPORTANT: Contractor	r (is or is not) required to s	ign this document and	return copies to the	issuing office.
14. DESCRIPTION OF AMENDMENT/M	ODIFICATION (Organized	by UCF section heading	gs, including solicitation/o	contract subject
matter where feasible.)				
0 - P 2				
Sec Page 2.				
Except as provided herein, all terms and	conditions of the documer	nt referenced in Item 9A	or 10A, as heretofore ch	anged, remains
unchanged and in full force and effect. 15A. NAME AND TITLE OF SIGNER (T)	une or orint	ISA NAME AND TH	LE OF CONTRACTING	OFFICER
ION. WANTE AND THEE OF SIGNER (/)	Abe of build	Judy F. Ross, Cor		
158. CONTRACTOR/OFFEROR		168. UNITED STATE	S OF AMERICA 1	60. DATE SIGNED May 2009
(Signature of person cuthorized to sign)		1	Contracting Officer)	STANDARD FORM 30 (REV.
NSN 7540-01-152-6370 PREVIOUS L'OH ON UNUSABLE	3	19-105	Pres	10-85) E3

- 1. Increase funding on this contract from (b) (4)
- Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):
 - (a) Of the total price of CLINs 0001 through 0003, the sum (a) (b) (4) is presently available for payment and allotted to this contract.
 - (c)(1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

AMENDMENT OF SOLI		ATION OF	1. CONTRACT I D CODE	PAGE OF PAGE
· co	NTRACT			1 2
2. AMENDMENT/MOD NO.	3. EFFECTIVE DATE	4. REQUISITION/P	URCHASE REQ. NO.	5. PROJECT NO
6	See Block 16C			
NASA-Johnson Space Center CODE		7. ADMINISTERED B	Y CODE	
Atui: Judy Ross, Maii Code: DC			pace Center, Attn: Jud	y Ross, BG
2101 NASA Pkwy Houston, TX 77058		2101 NASA Pkwy		
8. NAME AND ADDRESS OF CONTRAC	TOR /No. Street County S	Houston, TX 770	58 (9) SA. AMENDMENT OF	EOI IOTTATION
Space Exploration Technologies	TOTAL PROS. OCTOON, COUNTY, C	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	NO	SOCIONATION
Attn: Steven Scott		ľ	98. DATED (SEE ITE	W 11)
l Rocket Road		ļr		•
Hawthorne, CA 90250-6844]-	(10) 10A. MOD. OF CONT	RACT/ORDER No
			NNJ09GA04B	
CODE	FACILITY COL	DE	10B. DATED (SEE ITE	M 13)
				····
11. 1 The above numbered solicitation is amended i	THIS ITEM ONLY APPLIES			Condendado -
ine above numbered solicitation is amended to iffers must acknowledge receipt of this amen- nethods:				
(a) By completing items 8 and 15, and return (b) By acknowledging receipt of this ament (c) By separate letter or telegram which into ACKNOWLEDGMENT TO BE RECEIVED SPECIFIED MAY RESULT IN REJECTION	irring one (1) copy of the amen iment on each copy of the offe. sludes a reference to the solicit	idment; r submitted; or ation and amendment nun	nbers. FAILURE OF YOUR	
ACKNOWLEDGMENT TO BE RECEIVED SPECIFIED MAY RESULT IN REJECTION	AT THE PLACE DESIGNATES	D FOR THE RECEIPT OF	OFFERS PRIOR TO THE HO	UR AND DATE
change may be made by telegram or letter prior to the opening hour and date specified	, provided each telegram or let	ler makes reference to the	solicitation and this amendme	ont, and is received
2. ACCOUNTING AND APPROPRIATIO		an Paris de Maria de Paris de La complexación de la complexación de la complexación de la complexación de la c		
	(v dar (ii) dagan day		Cim+u-1-1 6 C	
			Financial Menageme	nt
13. THIS ITEM APPLIES ONLY TO MODI CONTRACT/ORDER NO. AS DESCR	IBED IN ITEM 14.			
A. THIS CHANGE ORDER IS ISSUED F CONTRACT ORDER NO. IN ITEM 10A.	PURSUANT TO: (Specify author	orily) THE CHANGES SE	ET FORTH IN ITEM 14 ARE M	ADE IN THE
B. THE ABOVE NUMBERED CONTRAC				changes in paying
office, appropriation date, etc.) SET FOR	TH IN ITEM 14, PURSUANT T	O THE AUTHORITY OF I	FAR 43.103(b),	
C. THIS SUPPLEMENTAL AGREEMENT	I IS ENTERED INTO PURSUA	INT TO AUTHORITY OF:		
D. OTHER (Specify type of modification a				
Clause II.A.10, Changes - Fixe	d Price (Deviation) (Fa	AR 52.243-1) (Aug	1987)	
	S required to sign this docu			
. DESCRIPTION OF AMENDMENT/MO	DIFICATION (Organized by	UCF section headings	, Including solicitation/conti	act subject
atter where feasible.)				- 1
ec Page 2				i
•				
				İ
coept as provided herein, all terms and co	nditions of the document re	eferenced in Item 9A or	10A, as heretofore change	d, remains
changed and in full force and effect. A. NAME AND TITLE OF SIGNER (Type	e or printi	AN MANAGAMIN TITLE	OF CONTRACTING OFFI	CEO
Steven Scott, Director and			OF CONTRACTING OFFI	CER
B. CONTRACTOR OF EROR	1	6B. UNITED STATES		DATE SIGNED
(Signature of person authorized to sign)	5-27-91	A A()	and on me	2009
H 7540-01-152-8070 EVIOUS EDITION UNUSABLE	30-10	· V		DARD FORM 30 (REV. 10-63) E8
The state of the s				10.041 20

.

1. Modify paragraphs 2 and 3 of DRD C1-5. Export Control Plan, as follows:

FROM: A draft plan shall be submitted within 30 days after contract award. A final Contractor-approved plan shall be submitted within 120 days after contract award.

The ECP requires concurrence of the Center Export Administrator (CEA). The plan shall be submitted within 30 days after contract start in draft form and revised to provide a final plan for approval within 120 days after contract start. The plan shall be reviewed at least annually thereafter and updated as required.

TO: The ECP shall be submitted within 30 days after contract start in draft form. It will be reviewed by the Center Export Administrator (CEA) for Johnson Space Center. Any comments from the Center will be submitted to the contractor through the Contracting Officer. The final plan, incorporating changes as necessary, shall be submitted within 120 days after contract start. The contractor shall review their plan at least annually thereafter and update it as required.

- 2. Replacement pages are provided herein.
- 3. All other terms and conditions remain unchanged and in full force and effect.

DATA REQUIREMENT DESCRIPTION

Number: C1-5

C1-5: EXPORT CONTROL PLAN

DESCRIPTION/PURPOSE:

The plan shall describe all export control activities related to the performance of contract requirements.

DATA REQUIREMENTS:

The Contractor shall prepare and submit an Export Control Plan (ECP), describing the Contractor's planned approach for accomplishing contract functions while adhering to export laws, regulations and directives.

The ECP shall be submitted within 30 days after contract start in draft form. It will be reviewed by the Center Export Administrator (CEA) for Johnson Space Center. Any comments from the Center will be submitted to the contractor through the Contracting Officer. The final plan, incorporating changes as necessary, shall be submitted within 120 days after contract start. The contractor shall review their plan at least annually thereafter and update it as required.

AMENDMENT OF SOL	CITATION/MODIFIC	ATION OF	1. CONTRACT I D CO	DE PAGE OF PAGE
C	ONTRACT	1101101	NNJ09GA04B	1 2
2. AMENDMENT/MOD NO.	3. EFFECTIVE DATE	4. REQUISITION/P	PURCHASE REQ. NO	. S. PROJECT NO
7	See Block 16C			
6, ISSUED BY NASA-Johnson Space Center	- 	7. ADMINISTERED	BY COI	DE
NASA-Johnson Space Center Attn: Judy Ross, Mail Code: BG	* [NASA-Johnson S	Space Center, Attn: J	udy Ross, BG
2101 NASA Pkwy		2101 NASA Pkw		,,
Houston, TX 77058		Houston, TX 770		
8. NAME AND ADDRESS OF CONTRA	CTOR (No. Street, County, S	State and ZIP Code)	(9) 9A. AMENDMENT	OF SOLICITATION
Space Exploration Technologies			NO	
Attn: Steven Scott			9B. DATED (SEE	ITEM 11)
1 Rocket Road				
Hawthorne, CA 90250-6844			(10) 10A. MOD. OF CO	
			NNTO96	
CODE	FACILITY COL	ÞÉ	X 108. DATED (SEE	EITEM 13)
11.	THIS ITEM ONLY APPLIES	TO AMENDMENTS O	F SOLICITATIONS	
The above numbered solicitation is amended Offers must acknowledge receipt of this ame methods:	as set forth in Item 14. The hou	ir and date execified for i	receipt of Offers (IS OR IS	NOT) extended. a of the following
(a) By completing Items 8 and 15, and re (b) By acknowledging receipt of this amel (c) By separate letter or telegram which in ACKNOWLEDGMENT TO BE RECEIVE SPECIFIED MAY RESULT IN REJECTIC change may be made by telegram or letter prior to the opening hour and date specific	ndment on each copy of the offenctudes a reference to the solicit D AT THE PLACE DESIGNATED NN OF YOUR OFFER. If by virtually, provided each telegram or let	r aubmitted; or ation and amandment nu D FOR THE RECEIPT O se of this amendment you	IF OFFERS PRIOR TO TH II dealte to change an offer	E HOUR AND DATE already submitted, such
12. ACCOUNTING AND APPROPRIATE				
IZ. ACCOMUNG AND AFFROFRIAN	JN DATA (II Iequied)		Financial Manag	tement
13. THIS ITEM APPLIES ONLY TO MOD CONTRACT/ORDER NO. AS DESC		TS/ORDERS, IT MOD	XFIES THE	
A. THIS CHANGE ORDER IS ISSUED CONTRACT ORDER NO. IN ITEM 104		ority) THE CHANGES S	SET FORTH IN ITEM 14 A	RE MADE IN THE
B. THE ABOVE NUMBERED CONTRA office, appropriation date, etc.) SET FO				h ae changes in paying
C. THIS SUPPLEMENTAL AGREEME	NT IS ENTERED INTO PURSUA	INT TO AUTHORITY OF	:	
0. OTHER (Specify type of modification				
Mutual Agreement of Parties				
IMPORTANT: Contracto	r IS required to sign this docu	ument and return 2 co	ples to the issuing office).
14. DESCRIPTION OF AMENDMENT/M matter where feasible.)	ODIFICATION (Organized by	/ UCF section heading	s, including solicitation	contract subject
See Page 2				
300 1 age 2				
Except as provided herein, all terms and	conditions of the document re	eferenced in item 9A o	or 10A, as heretofore ch	anged, remains
unchanged and in full force and effect. ISA. NAME AND TITLE OF SIGNER (7)	voe or print)	ISA NAME AND TITI	E OF CONTRACTING	OFFICER
Steven Scott, Director af				OFFICER
58 CONTRACTOR/OFFEROR		68. UNITED STATES		6C. DATE SIGNED
(Signature of person surnovized to sign)	6.17-09	Judis di	Ross 18	gun 2009
ISN 7640-01-152-8070 HEVIXUS EDITION UNUSASER	30-10	6		STANDARD FORM 30 (REV. 10-53) ES 10-63) ES

- Replace Attachment V.E, Safety And Health Plan, with the Space Exploration Technologies Safety Policy and Procedures Manual, Rev. 3, dated 03/20/2009. This document is incorporated by reference into the contract. A copy of this manual is available in the official contract file.
- 2. Replacement pages are provided herein.
- 3. All other terms and conditions remain unchanged and in full force and effect.

AMENDMENT OF SOLICITATION/MODIFIC	CATION OF CONTRACT	,,	1. CONTRACT ID CODE	PAGE OF	PAGES
		1: 55	DUISITION/PURCHASE REQ. NO.	Ja, PROJECT NO	(f englishts)
2. AMENDHENT/MODIFICATION NO.	3. EFFECTIVE DATE		3314500	0.710.00	. 10 14/14 07
8 6, (SS/JED BY CODE	See Block 160		M NISTERED BY (If other that: Item 6)	CODE JSC	
	Jac		M/Johnson Space Cent	<u> </u>	
MASA/Jehngon Syles Contur Acent Judy Ross/80			n: Judy Ross/BS		
2101 MADA Tarbuay		N 450 (100 (100 (100 (100 (100 (100 (100 (1	1 MASA Parkway		
Housesh TM 77050-3696		Hou	aton TX 77058-3696		
		1			
S. NAME AND AUTRESS OF CONTRACTOR (1)	The first and Title 2 and 1	10/	AMENDMENT OF SOLIC TATION NO.		
S, NAME AND AD TRESS OF GOVERNOUS ON	e. Ind., state and the dash.	(x)			
PACEX			DATED (SEE ITEM 11)		
ECCKET RO		l i	DATED (SEE TENT 1)		
ANTHORNE CA 96255				period and	
*0		× 10	A, MODIFICATION OF CONTRACTION	DER NO.	
		11			
		10	B. DATCO (SEE ITEM 12)		
CODE 3EVL9	FACILITY CODE	1 1	02/26/2009		
	11. THIS ITEM ONLY APPLIES	S TO AMEND			
The above numbered solicitation is emended as set	forth in Itam 14. The hour and date	specified for		n cultended. 🔘 is not e	
Offers must acknowledge receipt of this unwindmant	prior to the hour and date specimed	an une sonche	con or its american, by one of the tollows	al a Affirm and an install and in	A files
Maria Band M. and a himito	points of the ar undment (b) Bu ackr	nawiedalna re	resp. of this amendment on each curry of	THE OHER PRESENTING OF IT) Sy
separate letter or telegram which includes a reference THE PLACE CESTURATED FOR THE RECEIPT OF	ce to the solicitation and amendment	trumbers. Fr	NEURE OF YOUR AGNINOWLEDGEMEN	OF YOUR OFFER. YA	
THE PLACE DESIGNATED FOR THE RECEIPT OF wirtue of this arrentment you derive to change on of	FOFFERS PRIOR TO THE HOUR A	may be made	by telegram or letter, provided each telegram	gram ur leder make:	
referer to to the soft tation and this and administ, an	d is received prior to the ording hou	ur and date s	wolfert.	(h) (1) -
IL ACCOUNTING AND APPROPRIATION DATA (FA	equired)	Net In		(D)	7)
FR. # 4200314500			IODIFIES THE CONTRACT/ORDER NO.	AS DESCRIBED IN ITEM	14
13. THIS ITEM ONLY APPLIES TO	MODIFICATION OF CONTRACTS/O	INDEKS. II N	IDDIFIES THE CONTRACTION DER NO.	AG DEGGREGED IN THE I	
CHECK DIST A YULS CHANGE ORDER IS ESUED	SECULIAT TO Conneily authority	THE CHAN	GES SET FORTH IN ITEM 14 ARE MAD	E IN THE CONTRACT	
ORDER NO. PLITEM 10A.	r crooting to (o, ious) commission	, .			
B. THE APOVE NUMBERED CONTRU	ACT/ORDER IS MODIFIED TO REF	LECT THE A	OMINISTRATIVE CHANGES (such 35 cf. y OF FAR 43.103(b).	anges in paying aface,	
approviation data, etc.) SET FOR	THIN ITEM 14, PURSCANT TO THE	E AUTHOR I	Y OF PAR 43.103(D).		
C. THIS SUPPLEMENTAL AGREEME	NT IS ENTERED NIO PURSUANT	OHTUA OT	RITY CF:		
D. OTHER. Specify type of me to ballo	on and arthority)			Law.	
X Clume 11.A.1, NV3 1852.	.201-75 Limitation of T	unas (l'i	xed (Price Contract) (No		
E. IMPORTANT: Craitractor # Is not.	is required to sign this docume			issung office.	
14. DESCRIPTION OF AMENDMENT/MODIFICATION	N (Organized by UCF : scripp houding	ngs, anduding	concitation/contract subject mutter where	feasible.)	
See page 2:					
COURSE THEORY SOUTH					
*					
				and as first formation and market and	
Event is provided here, qualities and comments of	hir discumi itt lefelerice diin luin. PA	or 10A, at he	nciona charged, comina and anged a NAME AND TITLE OF CONTRACTING	OFFICER // po con	1
15%, NAME AND TITLE OF IN ONER (Types or print)		1		e i i i secri i i yace si b'ani	f c
		Ju	dy F. Sode	NAMES OF STREET OF STREET	
15B. CONTRACTOR OFFERCR	15C. DATE SIGN	ED 168	UNITED STATES OF AMERICA	16	C. DATE SIGNED
van men van hall der var seger en nover et 2.000 forboer en bed.		1	Judes of Year	١, لم	0/15/2009
		[]	(16) elure of Carriadal g Ciff. 46)	4	0/ 00/ 2009
Supplied of persons a forced to a gro			y	OTALINAEN ENDS	40 000 40 331

ST/10AHD FURM 30 (NEV. 10-13) Prescribed by GSA FAR (48 CF/0) 53:243

7.9

33

- 1. Increase funding on this contract from (b) (4)
- Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):
 - (a) Of the total price of CLINs 0001 through 0003, the sum c (b) (4) is presently available for payment and allotted to this contract.
 - (c)(1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

II.A. ADDENDUM TO FAR 52.212-4

NOTE: In accordance with paragraph (s) of FAR clause 52.212-4, any inconsistencies between FAR Clause 52.212-4 and the Addendum to FAR 52.212-4 of this solicitation or contract shall be resolved by giving precedence to the Addendum to FAR 52.212-4, except for the paragraphs listed in (s)(2).

II.A.1 ON-RAMP

- 1.1 The purpose of the Indefinite Delivery Indefinite Quantity (IDIQ) on-ramp is to provide NASA with a mechanism to recompete due to the loss of an existing ISS Commercial Resupply Services (CRS) supplier or to procure a vehicle service that is not currently being provided within the scope of this contract during the period of performance. NASA will determine whether those conditions are met prior to synopsizing and conducting the "On-Ramp" competition.
- 1.2 The parties mutually agree that the original solicitation, as revised, will be used as a basis to add additional awardees to the pool of existing awardee(s) to compete on future task orders. The decision to request proposals under the clause will be solely at NASA's discretion and will only occur after this requirement has been synopsized.
 - If NASA issues a solicitation notice, new and existing providers will be allowed to submit proposals within the notice's stated response time. Upon award of each additional contract, NASA shall notify all present Contractors of the award, and the new Contractor shall thenceforth be eligible to compete with all present Contractors for the award of IDIQ task orders.
- 1.3 Existing Contractors may propose services consistent with the Instruction to Offerors of the "On-Ramp" Request for Proposal, as revised. If the existing Contractor(s) chooses not to respond to the "On-Ramp" Request for Proposal, they remain as a candidate for competition of future orders under the terms of the existing contract.

(End of clause)

II.A.2 NFS 1852.232-77 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (MAR 1989)

- (a) Of the total price of CLINs 0001 through 0003, the sum of (b) (4) 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 as required by the payment schedule in Clause II.A.6, until the total price of said CLINs is allotted.
 - (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 Section II, Clause 52.212-4(1), Termination for the Government's Convenience, of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(1) would equal the amount retained by the Contractor

pursuant to Clause II.A.6 and Table II.A.6-1. 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 contract Section II, Clause 52.212-4(1) notwithstanding.

(c) Reserved.

(1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)

(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 sixty (60) days the work will reach a point at which, if the contract is terminated pursuant to contract Section II, Clause 52.212-4(1) of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(1) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1.

(3) Reserved.

- (i) The notice shall state the estimate when the point referred to in paragraph I(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, sixty (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 contract Section II, Clause 52.212-4(1).

- (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(s) (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 Termination for Cause clause of this contract. The provisions of this Limitation of Funds clause are limited to the work on

	o lar reves	ATION OF O	NTDACT	_		1. CONTRACT ID CODE		PAGE C	F PAGE	s
AMENDMENT OF S	OLICITATION/MODIFIC	ATION OF CO	DNIRACI				17.7.	1_		4
2. AMENDMENT/MODIF	ICATION NO.	3. EFFECTIVE	DATE	7/25		QUISMON/PURCHASE REQ. NO. 0316081	5. PR	OJECT NO). (If app	(çable)
000009		See Bloc	k 16C		_	MINISTERED BY (If other than Item 6)	CODI	JSC		
6 ISSUED BY	CODE	JSC					000	uac		-70115 - N
NASA/Johnson Attn: Judy R 2101 NASA Pa Houston TM 7	rkway			A1	tt	SA/Johnson Space Center In: Judy Ross/BG DI NASA Parkway DISTON TX 77058-3696				
8. NAME AND ADDRES	S OF CONTRACTOR (No., stress	f, county, State and	ZIP Code)	(x)	9,	A. AMENDMENT OF SOLICITATION NO.			200	400
SPACEX 1 ROCKET RD HAWTHORNE CA 90250				9B. DATED (SEE ITEM 11)						
				x	N N	0A, MODIFICATION OF CONTRACT/ORDER IN J 0 9GA 0 4B	VO.			
CODE 3BAT8		FACILITY COD	E		1	OB. DATED (SEE ITEM 13)	200	5t		
		11. THIS ITE	M ONLY APPLIES TO	AME	END	MENTS OF SOLICITATIONS		[] is not	- CELL	
PR # 4200316 13. T CHECK ONE A. THIS ORD	HIS ITEM ONLY APPLIES TO A CHANGE ORDER IS ISSUED ER NO. IN ITEM 10A.	PURSUANT TO:	F CONTRACTS/ORDE	RS. I	IT I	MODIFIES THE CONTRACT/ORDER NO. AS DINGES SET FORTH IN ITEM 14 ARE MADE IN ADMINISTRATIVE CHANGES (such as change by OF FAR 43.103(b).	THE CO	ONTRACT	8	
C. THIS	SUPPLEMENTAL AGREEME	NT IS ENTERED I	NTO PURSUANT TO	AUTI	НО	RITY OF:				
	ER (Specify type of modification e II.A.2, NFS 1851.		tation of Fund	s ((Fi	Lxed ; Price Contract) (Nor 1	909)	989		
E. IMPORTANT: Co	ntractor X is not.	is required t	a sign this document a	nd re	etur	n 0 copies to the issui	ng offici	8,		
See Fage 2						g solicitation vontract subject matter whore feas				
	ein, all terms and conditions of OF SIGNER (Type or print)	the document refe	erenced in Item 9A or 1		16,	neretofore changed, remains unchanged and in AL NAME AND TITLE OF CONTRACTING OFF 1 Day F. Ross	full ford	te and affai Type or pri	nt)	
15B CONTRACTOR/O	FFEROR	**	15C. DATE SIGNED			B. UNITED STATES OF AMERICA	CV25_202		BC. DAT	e signed
(Gianeture	of person auth-fized to sign)	Water 18			_	(ignature of Contracting Officer)			8 94	The same

(Signeture of person authorized to sign)
NSN 7540-01-152-8070
Previous edition unusuble

STANDARD FORM 30 (PEV. 10-83) Prescribed by GSA FAR (48 CFf.) 53.243

- 1. Increase funding on this contract from (b) (4)
- Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):
 - (a) Of the total price of CLINs 0001 through 0003, the sum of (b) (4) is presently available for payment and allotted to this contract.
 - (c)(1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

II.A. ADDENDUM TO FAR 52.212-4

NOTE: In accordance with paragraph (s) of FAR clause 52.212-4, any inconsistencies between FAR Clause 52.212-4 and the Addendum to FAR 52.212-4 of this solicitation or contract shall be resolved by giving precedence to the Addendum to FAR 52.212-4, except for the paragraphs listed in (s)(2).

II.A.1 ON-RAMP

- The purpose of the Indefinite Delivery Indefinite Quantity (IDIQ) on-ramp is to provide NASA with a mechanism to recompete due to the loss of an existing ISS Commercial Resupply Services (CRS) supplier or to procure a vehicle service that is not currently being provided within the scope of this contract during the period of performance. NASA will determine whether those conditions are met prior to synopsizing and conducting the "On-Ramp" competition.
- 1.2 The parties mutually agree that the original solicitation, as revised, will be used as a basis to add additional awardees to the pool of existing awardee(s) to compete on future task orders. The decision to request proposals under the clause will be solely at NASA's discretion and will only occur after this requirement has been synopsized.
 - If NASA issues a solicitation notice, new and existing providers will be allowed to submit proposals within the notice's stated response time. Upon award of each additional contract, NASA shall notify all present Contractors of the award, and the new Contractor shall thenceforth be eligible to compete with all present Contractors for the award of IDIQ task orders.
- 1.3 Existing Contractors may propose services consistent with the Instruction to Offerors of the "On-Ramp" Request for Proposal, as revised. If the existing Contractor(s) chooses not to respond to the "On-Ramp" Request for Proposal, they remain as a candidate for competition of future orders under the terms of the existing contract.

(End of clause)

II.A.2 NFS 1852.232-77 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (MAR 1989)

- (a) Of the total price of CLINs 0001 through 0003, the sum of (b) (4) 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 as required by the payment schedule in Clause II.A.6, until the total price of said CLINs is allotted.
- (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 Section II, Clause 52.212-4(l), Termination for the Government's Convenience, of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor

pursuant to Clause II.A.6 and Table II.A.6-1. 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 contract Section II, Clause 52.212-4(l) notwithstanding.

(c) Reserved.

- (1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
- (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 sixty (60) days the work will reach a point at which, if the contract is terminated pursuant to contract Section II, Clause 52.212-4(!) of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(!) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1.

(3) Reserved.

- (i) The notice shall state the estimate when the point referred to in paragraph I(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, sixty (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 contract Section II, Clause 52.212-4(1).
- (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(s) (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 Termination for Cause clause of this contract. The provisions of this Limitation of Funds clause are limited to the work on

	CATION OF CONTRACT		1. CONTRACT ID CODE	1	PAGE OF	PAGES
	3. EFFECTIVE DATE	4 REO	UISITION/PURCHASE REQ. NO.	5. PRO		(// applicabl*)
AMENDMENTMODIFICATION NO.		4.10.0		İ		
00010	See Block 16C	7. ADA	AINISTERED BY (If other than flam 6)	CODE	JSC	
)**************************************	JSC				<u> </u>	
MASA/Johnson Space Center			A/Johnson Space Cente: n: Judy Ross/BG	L		
Attn: Judy Ross/BG			1: Oddy Nossybo			
2101 NASA Parkway		8011	ston TX 77058-3696			
louston TX 77058-3696		1				
NAME AND ADDRESS OF CONTRACTOR (No., s/re-	at, county, State and ZIP Code)	(x) (A.	AMENDMENT OF SOLICITATION NO.			
		1				
PACEX		90	DATED (SEE ITEM 11)			
ROCKET RD		80.	POSTER INC. CO.			
AWTHORNE CA 90250						
		x 100	L MODIFICATION OF CONTRACT/ORDE	R NO.		
		10	DAYED (SEE ITEM 13)			
	FACILITY CODE					
CODE 3BAT8	17. THIS ITEM ONLY APPLIES		OFC 2 3 2008			
the state of the s	opies of the amendment; (b) By acknows to the solicitation and amendment to the solicitation and amendment to the HOTER AND THE	numbers. FA ND DATE SP pay be made	ILURE OF YOUR ACKNOWLEDGEMENT ECIFIED MAY RESULT IN REJECTION O by leit gran or letter, provided each talegra	TO BE RE	CEIVED A	r
THE PLACE DESIGNATED FOR THE RECEIPT OF virtue of this amendment you display to change an off reference to the solicitation and this amendment, and 12. ACCOUNTING AND APPROPRIATION DATA (If re	fer already submitted, such change it d is received prior to this opening hou	r and date sp	pc/160.			
THE PLACE DESIGNATED FOR THE RECEIPT OF virtue of this amendment you district to change an of reference to the solicitation and this amendment, and 12. ACCOUNTING AND APPROPRIATION DATA (**) re	fer already submitted, such change to d is received prior to this opening hou equired)	r and date sp	polities. Contract/Order No. As			14.
THE PLACE DESIGNATED FOR THE RECEIPT OF VITUA of this amendment you did in to change an off reference to the solicitation and his amendment, and 12. ACCOUNTING AND APPROPRIATION DATA (If re 13. THIS ITEM ONLY APPLIES TO CHECK ONE A THIS CHANGE ORDER IS ISSUED ORDER NO. IN ITEM 10A.	fer already submitted, such change of d is received prior to the opening host equived) MODIFICATION OF CONTRACTS/OF PURSUANT TO: (Specify authority)	RDERS. IT M	COPIES THE CONTRACT/ORDER NO. AS SES SET FORTH IN ITEM 14 ARE MADE	DESCRIPTION THE CO	ed in Item Ntract	14.
THE PLACE DESIGNATED FOR THE RECEIPT OF VITUA of this amendment you did in to change an off reference to the solicitation and his amendment, and 12. ACCOUNTING AND APPROPRIATION DATA (If re 13. THIS ITEM ONLY APPLIES TO CHECK ONE A THIS CHANGE ORDER IS ISSUED ORDER NO. IN ITEM 10A.	fer already submitted, such change of d is received prior to the opening host equived) MODIFICATION OF CONTRACTS/OF PURSUANT TO: (Specify authority)	RDERS. IT M	ODFIES THE CONTRACTIONDER NO. AS	DESCRIPTION THE CO	ed in Item Ntract	14.
THE PLACE DESIGNATED FOR THE RECEIPT OF VITUE of this amendment you did it to change an off reference to the solicitation and this amendment, and it reference to the solicitation and this amendment, and it reference to the solicitation and the same and the solicitation and the soli	Re already submitted, such change of d is received prior to the opening house squitted) MODIFICATION OF CONTRACTS/OF PURSUANT TO: (Specify authority) ACTIORDER IS MODIFIED TO REFLICH IN ITEM 14, PURSUANT TO THE	THE CHANGE AUTHORITO	ODFIES THE CONTRACT/ORDER NO. AS SES SET FORTH IN ITEM 14 ARE MADE MINISTRATIVE CHANGES (such as char OF FAR 43.103(b).	IN THE CO	ed in Item Ntract Og office,	14.
THE PLACE DESIGNATED FOR THE RECEIPT OF VITUE of this amendment you died in to change an off reference to the solicitation and his amendment, and 12. ACCOUNTING AND APPROPRIATION DATA (If received to the solicitation and his amendment, and 13. THIS ITEM ONLY APPLIES TO CHECK ONE. A THIS CHANGE ORDER IS ISSUED ORDER NO. IN ITEM 16A. B. THE ABOVE NUMBERED CONTEXT OF THE ABOVE NUMBERED CONTEXT OF THE ABOVE NUMBERED CONTEXT OF THIS SUPPLEMENTAL AGREEME YEAR 1.108(d) (3), API	re already submitted, such change of dis received prior to the opening houseputed) MODIFICATION OF CONTRACTS/OF PURSUANT TO: (Specify authority) ACT/ORDER IS MODIFIED TO REFLIC IN ITEM 14, PURSUANT TO THE NITEM 14, PURSUANT TO THE NITEM STATEMENT OF FAR CITY OF THE NITEMENT OF THE NI	THE CHANGE AUTHORITO	COPIES THE CONTRACT/ORDER NO. AS SES SET FORTH IN ITEM 14 ARE MADE MAINISTRATIVE CHANGES (Such as Char FOF FAR 43.103(b).	IN THE CO	ed in Item Ntract Og office,	14.
THE PLACE DESIGNATED FOR THE RECEIPT OF VITUE of this amendment you did it to change an off reference to the solicitation and this amendment, and it reference to the solicitation and this amendment, and it reference to the solicitation and this amendment, and it reference to the solicitation and the so	re already submitted, such change of dis received prior to the opening houseputed) MODIFICATION OF CONTRACTS/OF PURSUANT TO: (Specify authority) ACT/ORDER IS MODIFIED TO REFLIC IN ITEM 14, PURSUANT TO THE NITEM 14, PURSUANT TO THE NITEM STATEMENT OF FAR CITY OF THE NITEMENT OF THE NI	THE CHANGE AUTHORITO	ODFIES THE CONTRACT/ORDER NO. AS SES SET FORTH IN ITEM 14 ARE MADE MINISTRATIVE CHANGES (such as char OF FAR 43.103(b).	IN THE CO	ed in Item Ntract Og office,	14.
THE PLACE DESIGNATED FOR THE RECEIPT OF VITUE of this amendment you died in to change an off reference to the solicitation and his amendment, and 12. ACCOUNTING AND APPROPRIATION DATA (If received to the solicitation and his amendment, and 13. THIS ITEM ONLY APPLIES TO CHECK ONE. A THIS CHANGE ORDER IS ISSUED ORDER NO. IN ITEM 16A. B. THE ABOVE NUMBERED CONTEXT OF THE ABOVE NUMBERED CONTEXT OF THE ABOVE NUMBERED CONTEXT OF THIS SUPPLEMENTAL AGREEME YEAR 1.108(d) (3), API	re already submitted, such change of dis received prior to the opening houseputed) MODIFICATION OF CONTRACTS/OF PURSUANT TO: (Specify authority) ACT/ORDER IS MODIFIED TO REFLIC IN ITEM 14, PURSUANT TO THE NITEM 14, PURSUANT TO THE NITEM STATEMENT OF FAR CITY OF THE NITEMENT OF THE NI	THE CHANGE AND AUTHORITO AUTHOR AND AUTHOR AND AUTHOR AND AUTHOR AND AUTHOR AUT	CONFIES THE CONTRACT/ORDER NO. AS SESSET FORTH IN ITEM 14 ARE MADE SMAINISTRATIVE CHANGES (SUICH as Char OF FAR 43.103(b).	B DESCRIPION THE CO. IN THE CO. Rigos in payin	ed in Item Ntract Og office,	14.

15A. NAME AND TITLE OF SIGNER (Type or print)		DA, as hiretatore changed, remains unchanged and in full force and effect. 16A. NAME. AND TITLE OF CONTRACTING OFFICER (Type or print)				
38 1	75	Judy F. Ross				
158 CONTRAC (NR. 2) 15802 11 1 1 1 1 1 1 1 1 1 1	15C. DATE SIGNED	168. UNITED STATES OF AMERICA	16C. DATE SIGNED			
THE THE REAL PROPERTY OF THE PARTY OF THE PA	14 3.09	Gudy J. Rass	4 Nev 200			
(Styreth of rean white 18, 75 COLL CE	23 3.09	(Siç ture of Cantracting Officer) STANDARD	FORM 30 (REV 10-83)			

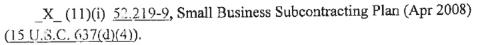
NGN 75-10-01-152-8070" Provides 6 8500 unuso No STANDARD FORM 30 (REV 10-69) Proscribed by GSA FAR (66 CFR) 53,243

Employment Eligibility Verification

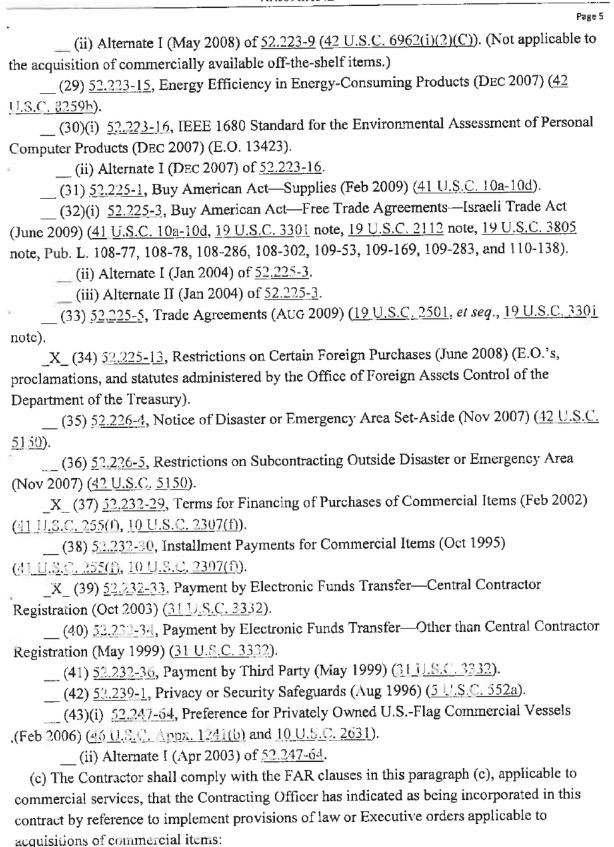
- The purpose of this modification is to modify the contract terms and conditions to include 52.222-54, Employment Eligibility Verification in accordance with Executive Order 12989. As a result of this change clause 52.212-5, Contract Terms and Conditions Required to Implement Statutes or Executive Orders – Commercial Items is hereby replaced in its entirety.
- 2. As a result of the changes mentioned above; Pages 52-56 of the modified Conformed Contract NNJ09GA04B are hereby attached as pages 3-7 of this modification. All other changes to the conformed contract are as a result of changes in the formatting or page numbering. An electronic copy of the new conformed contract is provided as an enclosure to this modification.
- 3. All other terms and conditions remain unchanged and in full force and effect.

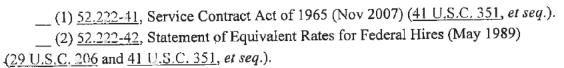
- III. CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS—COMMERCIAL ITEMS (FAR 52.212-5) (SEP 2009)
- (a) The Contractor shall comply with the following Federal Acquisition Regulation (FAR) clauses, which are incorporated in this contract by reference, to implement provisions of law or Executive orders applicable to acquisitions of commercial items:
 - (1) <u>52.222-50</u>, Combating Trafficking in Persons (Feb 2009) (<u>22 U.S.C. 7104(g)</u>).

 Alternate I (Aug 2007) of <u>52.222-50</u> (<u>22 U.S.C. 7104(g)</u>).
 - (2) <u>52.233-3</u>, Protest After Award (Aug 1996) (<u>31 U.S.C. 3553</u>).
- (3) <u>52.233-4</u>, Applicable Law for Breach of Contract Claim (OCT 2004) (Pub. L. 108-77, 108-78).
- (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 items:
- _X_(1) 52.203-6, Restrictions on Subcontractor Sales to the Government (Sept 2006), with Alternate I (Oct 1995) (41 U.S.C. 253g and 10 U.S.C. 2402).
- __ (2) <u>52.203-13</u>, Contractor Code of Business Ethics and Conduct (Dec 2008) (Pub. L. 110-252, Title VI, Chapter 1 (<u>41 U.S.C. 251 note</u>)).
- ___(3) <u>52.203-15</u>, Whistleblower Protections under the American Recovery and Reinvestment Act of 2009 (MAR 2009) (Section 1553 of Pub. L. 111-5). (Applies to contracts funded by the American Recovery and Reinvestment Act of 2009.)
- __ (4) <u>52.204-11</u>, American Recovery and Reinvestment Act—Reporting Requirements (Mar 2009) (Pub. L. 111-5).
 - __(5) <u>52,219-3</u>, Notice of Total HUBZone Set-Aside (Jan 1999) (<u>15 U.S.C. 657a</u>).
- ___(6) <u>52.219-4</u>, Notice of Price Evaluation Preference for HUBZone Small Business Concerns (July 2005) (if the offeror elects to waive the preference, it shall so indicate in its offer) (15 U.S.C. 657a).
 - (7) [Reserved]
 - __(8)(i) 53.219-6, Notice of Total Small Business Set-Aside (June 2003) (15 U.S.C. 644).
 - (ii) Alternate I (Oct 1995) of 52.219-6.
 - __ (iii) Alternate II (Mar 2004) of <u>52.219-6</u>.
 - __ (9)(i) 52.219-7, Notice of Partial Small Business Set-Aside (June 2003) (15 U.S.C. 644).
 - __(ii) Alternate I (Oct 1995) of 52.219-7.
 - __ (iii) Alternate II (Mar 2004) of <u>52.219-7</u>.
- X_(10) <u>52.219-8</u>, Utilization of Small Business Concerns (May 2004) (<u>15 U.S.C. 637(d)(2</u>) and (3)).



- (ii) Alternate I (Oct 2001) of 52.219-9.
- X_(iii) Alternate II (Oct 2001) of 52.219-9.
- (12) <u>52.219-14</u>, Limitations on Subcontracting (Dec 1996) (<u>15 U.S.C. 637(a)(14)</u>).
- _X_(13) <u>52.219-16</u>, Liquidated Damages—Subcon-tracting Plan (Jan 1999) (<u>15 U.S.C.</u> 637(d)(4)(F)(i)).
- _X_(14)(i) <u>52.219-23</u>, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns (OCT 2008) (<u>10 U.S.C. 2323</u>) (if the offeror elects to waive the adjustment, it shall so indicate in its offer).
 - (ii) Alternate I (June 2003) of 52.219-23.
- (15) <u>52.219-25</u>, Small Disadvantaged Business Participation Program—Disadvantaged Status and Reporting (Apr 2008) (Pub. L. 103-355, section 7102, and <u>10 U.S.C. 2323</u>).
- ___(16) <u>52,219-26</u>, Small Disadvantaged Business Participation Program— Incentive Subcontracting (Oct 2000) (Pub. L. 103-355, section 7102, and <u>10 U.S.C. 2323</u>).
- ___(17) <u>52.219-27</u>, Notice of Total Service-Disabled Veteran-Owned Small Business Set-Aside (May 2004) (15 U.S.C. 657 f).
- __(18) 52.219-28, Post Award Small Business Program Rerepresentation (Apr 2009) (15 U.S.C. 632(a)(2)).
 - (19) <u>52.222-3</u>, Convict Labor (June 2003) (E.O. 11755).
- X_(20) 52,222-19, Child Labor—Cooperation with Authorities and Remedies (Aug 2009) (E.O. 13126).
 - X_(21) 52.222-21, Prohibition of Segregated Facilities (Feb 1999).
 - X (22) <u>52.222-26</u>, Equal Opportunity (Mar 2007) (E.O. 11246).
- X (23) 52,222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (Sept 2006) (38 U.S.C. 4212).
- _X_(24) <u>52.222-36</u>, Affirmative Action for Workers with Disabilities (Jun 1998) (29 U.S.C. 793).
- (25) <u>52.222-37</u>, Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (Sept 2006) (<u>38 U.S.C. 4212</u>).
- __(26) <u>52.222-39</u>, Notification of Employee Rights Concerning Payment of Union Dues or Fees (Dec 2004) (E.O. 13201).
- (27) 52.222-54, Employment Eligibility Verification (JAN 2009). (Executive Order 12989). (Not applicable to the acquisition of commercially available off-the-shelf items or certain other types of commercial items as prescribed in 22.1303.)
- __(28)(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.)





- ___(3) <u>52.222-43</u>, Fair Labor Standards Act and Service Contract Act—Price Adjustment (Multiple Year and Option Contracts) (Sep 2009) (<u>29 U.S.C. 206</u> and <u>41 U.S.C. 351</u>, et seq.).
- ___(4) 52.222-44, Fair Labor Standards Act and Service Contract Act—Price Adjustment (Sep 2009) (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).
- ___(5) <u>52.222-51</u>, Exemption from Application of the Service Contract Act to Contracts for Maintenance, Calibration, or Repair of Certain Equipment—Requirements (Nov 2007) (<u>41 351</u>, et seq.).
- __ (6) <u>52.222-53</u>, Exemption from Application of the Service Contract Act to Contracts for Certain Services—Requirements (Feb 2009) (<u>41 U.S.C. 351</u>, et seq.).
- __ (7) <u>52.226-6</u>, Promoting Excess Food Donation to Nonprofit Organizations (Mar 2009) (Pub. L. 110-247).
 - __(8) <u>52.237-11</u>, Accepting and Dispensing of \$1 Coin (Sept 2008) (<u>31 U.S.C. 5112(p)(1)</u>).
- (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, 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 <u>Subpart 4.7</u>, 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 items. 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 (Dec 2008) (Pub. L. 110-252, Title VI, Chapter 1 (41 U.S.C. 251 note)).
- (ii) <u>52.219-8</u>, Utilization of Small Business Concerns (May 2004) (<u>15 U.S.C. 637(d)(2)</u> and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds \$550,000 (\$1,000,000 for construction of any public facility), the subcontractor must include <u>52,219-8</u> in lower tier subcontracts that offer subcontracting opportunities.
 - (iii) [Reserved]
 - (iv) 52,222-26, Equal Opportunity (Mar 2007) (E.O. 11246).
- (v) <u>52.222-35</u>, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (Sept 2006) (<u>38 U.S.C. 4212</u>).
- (vi) <u>52.222-36</u>, Affirmative Action for Workers with Disabilities (June 1998) (29 U.S.C. 793).
- (vii) <u>52.223-39</u>, Notification of Employee Rights Concerning Payment of Union Dues or Fees (Dec 2004) (E.O. 13201).
 - (viii) 52.222-41, Service Contract Act of 1965 (Nov 2007) (41 U.S.C. 351, et seq.).
 - (ix) 52,222-50, Combating Trafficking in Persons (Feb 2009) (22 U.S.C. 7104(g)).

Alternate I (Aug 2007) of 52.222-50 (22 U.S.C. 7104(g)).

- (x) <u>52.222-51</u>, Exemption from Application of the Service Contract Act to Contracts for Maintenance, Calibration, or Repair of Certain Equipment-Requirements (Nov 2007) (<u>41 U.S.C.</u> 351, et seg.).
- (xi) <u>52.222-53</u>, Exemption from Application of the Service Contract Act to Contracts for Certain Services-Requirements (Feb 2009) (<u>41 U.S.C. 351</u>, et seq.).
 - (xii) 52.222-54, Employment Eligibility Verification (JAN 2009).
- (xiii) <u>52.226.6</u>, Promoting Excess Food Donation to Nonprofit Organizations (Mar 2009) (Pub. L. 110-247). Flow down required in accordance with paragraph (e) of FAR clause <u>52.226-6</u>.
- (xiv) <u>52.247-64</u>, Preference for Privately Owned U.S.-Flag Commercial Vessels (Feb 2006) (<u>46 U.S.C. Appx. 1241(b)</u> and <u>10 U.S.C. 2631</u>). Flow down required in accordance with paragraph (d) of FAR clause <u>52.247-64</u>.
- (2) While not required, the contractor may include in its subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

(End of clause)

(END OF SECTION)

AMENDMENT OF SOLICITATION/MODI	FICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGES
				1 4
2. AMENDMENT/MODIFICATION NO	3 EFFECTIVE DATE	1	JISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
000011 SISSUED BY COI	See Block 16C		320080	
ISSUED BY COM IASA/Johnson Space Center Attn: Judy Ross/BG 101 NASA Parkway Iouston TX 77058-3696	JSC JSC	NASA Attr 2101	INISTERED BY (If other than than 6) //Johnson Space Cente : Judy Ross/BG NASA Parkway toon TX 77058-3696	CODE JSC
PACEX ROCKET RD AWTHORNE CA 90250	treet, courly, State and ZIP Cocoj	98	AMENDMENT OF SOLICITATION NO DATED (SEE ITEM 11) MODIFICATION OF CONTRACT/ORDI J09GA04B	ER NO
ODE 3BVL8	FACILITY CODE	— I —	DATED (SEE ITEM 13)	
	11. THIS ITEM ONLY APPLIES		EC 2 3 2008	
A THIS CHANGE ORDER IS ISSUED ORDER NO IN ITEM 10A.	1d is received prior to the opening hour required) NODIFICATION OF CONTRACTS/ORI PURSUANT TO: (Specify sulfhority)	et Incr Ders. IT MOD THE CHANGE	ease: DIFIES THE CONTRACT/ORDER NO. AS S SET FORTH IN ITEM 14 ARE MADE	(b) (4) B DESCRIBED IN ITEM 14.
area to the second of the seco	ACT/ORDER IS MODIFIED TO REFLE TH IN ITEM 14, PURSUANT TO THE A ENT IS ENTERED INTO PURSUANT TO		NISTRATIVE CHANGES (such as change far 43 103(b)	ges in paying office,
D OTHER (Specify type of modification				
	732-77, Limitation of Fu	inds (Fix	ed Price Contract: (Mar 1	98 <u>9</u> ;
IMPORTANT: Contractor It is not DESCRIPTION OF AMENDMENT/MODIFICATION	is required to sign this document		O copies to the ise	uing office,
ee Page 2				
cept as provided herein, all terms and conditions of t A NAME AND TITLE OF SIGNER (Type or punt)	he document reterenced in item SA or t	18A NA	ore changed, remains unchanged and in AE AND TITLE OF CONTRACTING OF	n full farce and effect FICER (Type or print)
CONTRACTOR/OFFEROR	15C. DATE SIGNED	-		
	19G. DATE SIGNED	16B UNI	du F. Roon	16C DATE SIGNED
(Signature of person suffronted to sign)			Signature of Contracting Officer)	11/23/2009

psignanus of person authorized to sign!
NSN 7540-01-152-8070
Previous edition unusable

STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53 243

The purpose of this modification is to:

- 1. Increase funding on this contract from (b) (4)
- Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):
 - (a) Of the total price of CLINs 0001 through 0003, the sum of (b) (4) is presently available for payment and allotted to this contract.
 - (c)(1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

II.A. ADDENDUM TO FAR 52.212-4

NOTE: In accordance with paragraph (s) of FAR clause 52.212-4, any inconsistencies between FAR Clause 52.212-4 and the Addendum to FAR 52.212-4 of this solicitation or contract shall be resolved by giving precedence to the Addendum to FAR 52.212-4, except for the paragraphs listed in (s)(2).

II.A.1 ON-RAMP

- 1.1 The purpose of the Indefinite Delivery Indefinite Quantity (IDIQ) on-ramp is to provide NASA with a mechanism to recompete due to the loss of an existing ISS Commercial Resupply Services (CRS) supplier or to procure a vehicle service that is not currently being provided within the scope of this contract during the period of performance. NASA will determine whether those conditions are met prior to synopsizing and conducting the "On-Ramp" competition.
- 1.2 The parties mutually agree that the original solicitation, as revised, will be used as a basis to add additional awardees to the pool of existing awardee(s) to compete on future task orders. The decision to request proposals under the clause will be solely at NASA's discretion and will only occur after this requirement has been synopsized.
 - If NASA issues a solicitation notice, new and existing providers will be allowed to submit proposals within the notice's stated response time. Upon award of each additional contract, NASA shall notify all present Contractors of the award, and the new Contractor shall thenceforth be eligible to compete with all present Contractors for the award of IDIQ task orders.
- 1.3 Existing Contractors may propose services consistent with the Instruction to Offerors of the "On-Ramp" Request for Proposal, as revised. If the existing Contractor(s) chooses not to respond to the "On-Ramp" Request for Proposal, they remain as a candidate for competition of future orders under the terms of the existing contract.

(End of clause)

II.A.2 NFS 1852.232-77 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (MAR 1989)

- (a) Of the total price of CLINs 0001 through 0003, the sum of (D) (4) 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 as required by the payment schedule in Clause II.A.6, until the total price of said CLINs is allotted.
- (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 Section II, Clause 52.212-4(l), Termination for the Government's Convenience, of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor

pursuant to Clause II.A.6 and Table II.A.6-1. 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 contract Section II, Clause 52.212-4(1) notwithstanding.

- (c) Reserved.
 - (1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
 - (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 sixty (60) days the work will reach a point at which, if the contract is terminated pursuant to contract Section II, Clause 52.212-4(1) of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(1) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1.
 - (3) Reserved.
 - (i) The notice shall state the estimate when the point referred to in paragraph I(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, sixty (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 contract Section II, Clause 52.212-4(1).
- (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(s) (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 Termination for Cause clause of this contract. The provisions of this Limitation of Funds clause are limited to the work on

	A TIGHT OF CONTRACT	1. CONTRACT ID CODE	PAGE OF PAGES
MENDMENT OF SOLICITATION/MODIFIC	ATION OF CONTRACT		1 4
AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
00012	See Block 16C	4200322923	
SSUED BY CODE	JSC	7. ADMINISTERED BY (If other than Item 6)	CODE JSC
ASA/Johnson Space Center ttn: Judy Ross/BG LOI NASA Parkway Duston TX 77058-3696		NASA/Johnson Space Cente Attn: Judy Ross/BG 2101 NASA Parkway Houston TX 77058-3596	er.
NAME AND ADDRESS OF CONTRACTOR (No., street	t, county, State and ZIP Code)	(x) 9A. AMENDMENT OF SOLICITATION NO.	3
		П	
ACEX ROCKET RD		9B. DATED (SEE ITEM 11)	- 10 t - 10
WTHORNE CA 90250			
WITHOUGH OF SOLDS		104 MODIFICATION OF CONTRACT/ORS	DER NO.
		x 10A MODIFICATION OF CONTRACT/ORD NNJ09GA04B	
\$		10B, DATED (SEE ITEM 13)	
DDE 3BVL8	FACILITY CODE	DEC 2.3 2002	
The above numbered solicitation is amended as set for	11. THIS ITEM ONLY APPLIES TO		extended. Lis not extended.
CHECK ONE A. THIS CHANGE ORDER IS ISSUED ORDER NO. IN ITEM 10A.	PURSUANT TO: (Specify authority) TH CT/ORDER IS MODIFIED TO REFLEC H IN ITEM 14, PURSUANT TO THE AU	THE ADMINISTRATIVE CHANGES (such as changery of:	E IN THE CONTRACT
		KOTHORIT OF.	
D. OTHER (Specify type of modification		Intued Brice Contract) (Mic	1986)
X Clause II.A.2, NFS 1852.	is required to sign this document a	nds (Fixed Price Contract) (Mar	Issuing office.
IMPORTANT: Contractor VIIs not. 4. DESCRIPTION OF AMENDMENT/MODIFICATION SE Page 2) (Organized by UCF sention headings, i	including sciloitation/contract subject matter when	: foo.sibie.)
Except as provided herein, all tenns and conditions of	the document raferenced in Item 9A or 1	ICA, as heretofore changed, remains unchanged a	nd in full force and affect.
SA. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING	OFFICER (Type of print)
		Lauren N. Johnson	
158. CONTRACTOR/OFFEROR	15C. DATE SIGNED	15B. LUITED STATES OF AMERICA	16C. DATE SIGNED,
	350.000 S.250.33 S.250.34 S.250.35 S.	Mallan A. H. k. ll.	WIN 19117/08
(Signature of person sutherized to sign)		(Signulure of Cont. Img Officer	12/1/
NSN 7540-01-152-6070 Provious edition unusable			STANDARD FORM 5J (REY 14. 83) Prescribed by GSA

Prescribed by GSA FAR (43 CFR) £3.243

The purpose of this modification is to:

- 1. Increase funding on this contract from (b) (4)
- Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):
 - (a) Of the total price of CLINs 0001 through 0003, the sum of (b) (4) is presently available for payment and allotted to this contract.
 - (c)(1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

II.A. ADDENDUM TO FAR 52.212-4

NOTE: In accordance with paragraph (s) of FAR clause 52.212-4, any inconsistencies between FAR Clause 52.212-4 and the Addendum to FAR 52.212-4 of this solicitation or contract shall be resolved by giving precedence to the Addendum to FAR 52.212-4, except for the paragraphs listed in (s)(2).

II.A.1 ON-RAMP

- 1.1 The purpose of the Indefinite Delivery Indefinite Quantity (IDIQ) on-ramp is to provide NASA with a mechanism to recompete due to the loss of an existing ISS Commercial Resupply Services (CRS) supplier or to procure a vehicle service that is not currently being provided within the scope of this contract during the period of performance. NASA will determine whether those conditions are met prior to synopsizing and conducting the "On-Ramp" competition.
- 1.2 The parties mutually agree that the original solicitation, as revised, will be used as a basis to add additional awardees to the pool of existing awardee(s) to compete on future task orders. The decision to request proposals under the clause will be solely at NASA's discretion and will only occur after this requirement has been synopsized.
 - If NASA issues a solicitation notice, new and existing providers will be allowed to submit proposals within the notice's stated response time. Upon award of each additional contract, NASA shall notify all present Contractors of the award, and the new Contractor shall thenceforth be eligible to compete with all present Contractors for the award of IDIQ task orders.
- 1.3 Existing Contractors may propose services consistent with the Instruction to Offerors of the "On-Ramp" Request for Proposal, as revised. If the existing Contractor(s) chooses not to respond to the "On-Ramp" Request for Proposal, they remain as a candidate for competition of future orders under the terms of the existing contract.

(End of clause)

II.A.2 NFS 1852.232-77 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (MAR 1989)

(a) Of the total price of CLINs 0001 through 0003, the sum of (b) (4) 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 as required by the payment schedule in Clause II.A.6, until the total price of said CLINs is allotted.

(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 Section II, Clause 52.212-4(l), Termination for the Government's Convenience, of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor

pursuant to Clause II.A.6 and Table II.A.6-1. 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 contract Section II, Clause 52.212-4(1) notwithstanding.

Reserved. (c)

(1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4) be performed until

(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 sixty (60) days the work will reach a point at which, if the contract is terminated pursuant to contract Section II, Clause 52.212-4(1) of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(1) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1.

(3) Reserved.

The notice shall state the estimate when the point referred to in paragraph I(2) (i) 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.

The Contractor shall, sixty (60) days in advance of the date specified in (ii) 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 contract Section II, Clause 52.212-4(1).

When additional funds are allotted from time to time for continued performance of the (d) 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.

If, solely by reason of the Government's failure to allot additional funds in amounts (e) 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(s) (including appropriate target, billing, and ceiling prices where applicable) of the items to be delivered, or in the time of delivery, or both.

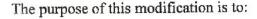
The Government may at any time before termination, and, with the consent of the (f) Contractor, after notice of termination, allot additional funds for this contract.

The provisions of this clause with respect to termination shall in no way be deemed to ·(g) limit the rights of the Government under the Termination for Cause clause of this contract. The provisions of this Limitation of Funds clause are limited to the work on

MENDMENT OF SOLICITATIONNADIFICATION FOODTRACT SERVEDBY SOLICITATIONNADIFICATION FOODTRACT SOLICITATIONNADIFICATION FOODTRACT SOLICITATIONNADIFICATION FOODTRACT SOLICITATIONNADIFICATION FOODTRACT SOLICITATIONNADIFICATION FOODTRACT SOLICITATIONNADIFICATION FOODTRACT SOLICITATIONNADIFICATION FOODTRACT MARRAYJOHNSON SPACE Center Attn: Judy Ross/FOO MARRAYJOHNSON SPACE Center Attn: Judy Ross/FOO MARRAYJOHNSON SPACE Center Attn: Judy Ross/FOO MARRAYJOHNSON SPACE Center Attn: Judy Ross/FOO MARRAYJOHNSON SPACE Center Attn: Judy Ross/FOO MARRAYJOHNSON SPACE Center Attn: Judy Ross/FOO MARRAYJOHNSON SPACE Center Attn: Judy Ross/FOO MARRAYJOHNSON SPACE		ATION OF CONTRACT	1. CONTRACT ID CODE	PAGE OF PAGES
See Block 16C 42,0032 4825 TAMMRITHMEN BY INFORMATION OF CORD BY AND AND AND AND AND AND AND AND AND AND		SALE UNITS		
SIGNIO IN CODE SIGN SIGNIO IN CODE SIGN SIGNIO IN CODE SIGN SIGNIO IN CODE SIGNIO SIGNIO IN C	AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE		5. PROJECT NO. (If applicable)
BASEA JOHNSON Space Center Time Judy Ross/Ref Attim: Judy Ross/Ref Attim: Judy Ross/Ref Attim: Judy Ross/Ref Attim: Judy Ross/Ref Attim: Judy Ross/Ref Attim: Judy Ross/Ref Attim: Judy Ross/Ref Attim: Judy Ross/Ref Attim: Judy Ross/Ref Attim: Judy Ross/Ref Attim: Judy Ross/Ref Attim: Judy Ross/Ref Attim: Judy Ross/Ref Attim: Judy Ross/Ref Attim: Judy Ross/Ref Attim: Judy Ross/Ref Attim: Judy Ross/Ref Attim: Judy Ross/Ref Ref ROSS-Ref ROSS-Re		See Block 16C		CODE TOO
BOCKET RD WITHORNS CA 90250 WI	ASA/Johnson Space Center ttn: Judy Ross/BG 101 NASA Parkway	JSC	NASA/Johnson Space Center Attn: Judy Ross/BG 2101 NASA Parkway	000
A CALAMORE CA 90250 A CALAMORE CATION OF CONTRACTIONERS NO. COPICE of the manufacture of contraction of the contract of the contr	PACEX	County: State and ZIP Gode)	(x)	
Inc. Dotter Inc.			10A AND INICATION OF CONTRACT/ORDES	R NO.
1. THIS DEVIA FACILITY CODE 1. THIS TERM ONLY APPLIES TO AMERIOMENTS OF SOUGHTATIONS 1. THIS TERM ONLY APPLIES TO AMERIOMENTS OF SOUGHTATIONS 1. THIS DEVIA municipal solicitation is a mended as set from the minute mode of the solicitation or as manerated by one of the following methods (a) is not extended. Operating the solicitation or as manerated by one of the following methods (a) one obtained on the nous and date specified in the solicitation or as manerated by one of the following methods (a) of the property of the manerater of the semination of the solicitation or as manerated by one of the following methods (a) of the property of the property of the semination			NNJ09GA04B	
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLIDITATIONS The above furnishment solicitation is amended as set forth in liter 14. The hour and date specified for receipt of Offers Offers must addrowledge receipt of this amendment to the hour and date specified in the soliditation or a smeaded, by one of the following methods: (a) by completing Items 8 and 15, and returning Copies of the mendment protein the hour and date specified in the soliditation or a smeaded by one of the following methods: (a) by completing Items 8 and 15, and returning Copies of the mendment protein the self-copy of the offer aboritistic of (a) by advancing Items 8 and 15, and returning Copies of the mendment protein the self-copy of the soliditation and remondment furnishment on each copy of the offer aboritists of the specified protein and the self-copy of the soliditation and remondment protein and copy such and sale specified. THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by Virtual of this amendment you desire to change as not all examples published and on the specified protein provided aschibited to offer a published protein of the soliditation and examples the contract provided aschibited to offer a published protein of the soliditation and self-copy and date specified. 2. A THIS CHANGE GROEN IS ISSUED PURSUANT TO: (Specify suchnote) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT DEBECTIONS A THIS CHANGE GROEN IS ISSUED PURSUANT TO: (Specified purples of the CONTRACT FORDER IN ON ITEM 104. DEBECTIONS A THIS CHANGE GROEN IS ISSUED PURSUANT TO: (Specified purples of the CONTRACT IN IN ITEM 14 ARE MADE IN THE ALTHORITY OF PARK STORDES (such as changes in paying office). B. THE ABOVE NUMBER CONTRACTORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office). B. THE ABOVE NUMBER CONTRACTORDER IS IN ITEMS TO A STORDER IN ITEMS TO A STORDER IN ITEMS TO A STORDER IN ITEMS TO A STORDER IN ITEMS TO A STORDER IN	PODE OFFICE	TEACH ITY CODE	0.0000000000000000000000000000000000000	
The above numbured subcitation is amended as set forth it item 14. The hour and date specified for receipted of Offers. Ite adenoids Item 14 offers in the proof of the amendment prior to the hours and date specified for receipted of the immediating are done in the hours and date specified for receipted of the immediating are done in the proof of the immediation of the second of the immediation of the second of the immediation of the second of the immediation of the immediation of the immediation of the immediation of the second of the immediation of the immediation of the second of the immediation of the imm	ODE 3BLT8	N4.000-5640 NOCOMMONTO D	100	
Net Increase: 13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/CROBERS. IT MODIFIES THE CONTRACT/CROBER NO. AS DESCRIBED IN ITEM 14. CHECK ONLY A THIS CHANGE CROSER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT CROBER NO. IN ITEM 104. B. THE ABOVE NUMBERED CONTRACT/CROBER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appointable on site, dec.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF PAR 43.100(b). C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF. D. OTHER (Specify type of modification and authority) X. Clause 12.2, IFES 155.1052-77, Limitation of Funds (Fixed Price Contract) (Nat 1979) E. IMPORTANT: Contractor (E) is not. (Dis required to sign this document and rature) D. copies to the Issuing office 14, DESCRIPTION OF AMENDMENTATION (Organized by UCF section including solicitation/contract subject matter where fleasible.) E. Tegol as provided Persin, as learns and conditions of the occument referenced in Item 9A or 10A, as harelofore changed, remains unchanged size in full force and effect. 16A NAME AND TITLE OF SIGNER (Type or print) The NAME AND TITLE OF SIGNER (Type or print) 16B CONTRACTOR/OFFEROR 16C DATE SIGNED	separate letter or telegram which includes a reference THE PLACE DESIGNATED FOR THE RECEIPT OF virtue of this amandment you desire to chance an offe	e to the solicitation and amendment re OFFERS PRIOR TO THE HOUR ANI or already submitted, such change ma	umbers. FAILURE OF YOUR ACKNOWLEDGEMENT D DATE SPECIFIED MAY RESULT IN REJECTION OF my be made by telegram or letter, provided each telegrei	TO BE RECEIVED AT F YOUR OFFER. If by
A. THIS CHANGE GROER IS ISSUED PURSUANT TO (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A. B. THE ABOVE NUMBERED CONTRACTIONOBER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation dail, sich) SET FORTH IN ITEM 14 PURSUANT TO THE AUTHORITY OF FAR 43.103(b). C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF D. OTHER (Specify type of modification and authority) X. Clause 1	2. ACCOUNTING AND APPROPRIATION DATA (If rea See Schedule	quired) N	et Increase:	(b) (4)
A. THIS CHANGE GROER IS ISSUED PURSUANT TO (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A. B. THE ABOVE NUMBERED CONTRACTIONOBER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation dail, sich) SET FORTH IN ITEM 14 PURSUANT TO THE AUTHORITY OF FAR 43.103(b). C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF D. OTHER (Specify type of modification and authority) X. Clause 1	13. THIS ITEM ONLY APPLIES TO N	MODIFICATION OF CONTRACTS/OR	DERS. IT MODIFIES THE CONTRACT/ORDER NO. AS	DESCRIBED IN ITEM 14.
ELIMPORTANT: Contractor Elia not. Is required to sign this document and ratum O copies to the issuing office 14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section includings, including soliditation/contract subject matter where feasible) 15. Page 2 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) 15B. CONTRACTOR/OFFEROR 15C. DATE SIGNED 15B. United STATES OF AMERICA (1970) 15B. United STATES OF AMERICA (1970) 15B. United STATES OF AMERICA (1970) 16C. DATE SIGNED 15B. United STATES OF AMERICA (1970) 16C. DATE SIGNED	B. THE ABOVE NUMBERED CONTRA appropriation data, etc.) SET FORT	CT/ORDER IS MODIFIED TO REFLE H IN ITEM 14, PURSUANT TO THE A	ECT THE ADMINISTRATIVE CHANGES (such as chang AUTHORITY OF FAR 43.103(b).	
ELIMPORTANT: Contractor Elia not. Is required to sign this document and ratum O copies to the issuing office 14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section includings, including soliditation/contract subject matter where feasible) 15. Page 2 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) 15B. CONTRACTOR/OFFEROR 15C. DATE SIGNED 15B. United STATES OF AMERICA (1970) 15B. United STATES OF AMERICA (1970) 15B. United STATES OF AMERICA (1970) 16C. DATE SIGNED 15B. United STATES OF AMERICA (1970) 16C. DATE SIGNED	D. OTHER (Specify type of mostilication	and authority)		· · · · · · · · · · · · · · · · · · ·
Entertial as provided herein, at terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect. 16A NAME AND TITLE OF SIGNER (Type or print)	Y Clause 15.2, NFS 1.52.	332-77, Limitation of F	unis (Fired Price Contract) (Nor 1	969)
Exhapt as provided herein, as 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) 15B. CONTRACTOR/OFFEROR 15C. DATE SIGNED 15B. United STATES OF AMERICA 16C. DATE SIGNED 15B. United STATES OF AMERICA 16C. DATE SIGNED 16D. DATE SIGNED			Δ	
15A. NAME AND TITLE OF SIGNER (Type or print) 15A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) 15B. CONTRACTOR/OFFEROR 15C. DATE SIGNED 15B. United STATES OF AMERICA (16C. DATE SIGNED) (Signature of per on authorized to s.m.)	ore Page C	35		
15B. CONTRACTOR/OFFEROR 15C. DATE SIGNED (Signature of per ion authorized to s.m.) (Signature of Contracting Officer)		the document referenced in Item 9A o	16A, NAME, AND TITLE OF CONTRACTING C	FFICER (Type or print)
Expression of performances to servi	15B. CONTRACTOR/OFFEROR	15C. DATE SIGNE	Much Chur	
	(Signature of perion authorized to sim)		(Signature of Coveracting Officer)	CTANDAGD FORM 80 (REV. 10-80)

Providus edition unusable

CTANDARD FORM 80 (REV. 10-80 Prescribed by GSA FAR (48 UFR) 53 243



- 1. Increase funding on this contract from (b) (4)
- Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):
 - (a) Of the total price of CLINs 0001 through 0003, the sum of presently available for payment and allotted to this contract.
 - (c)(1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4.)
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

II.A. ADDENDUM TO FAR 52.212-4

NOTE: In accordance with paragraph (s) of FAR clause 52.212-4, any inconsistencies between FAR Clause 52.212-4 and the Addendum to FAR 52.212-4 of this solicitation or contract shall be resolved by giving precedence to the Addendum to FAR 52.212-4, except for the paragraphs listed in (s)(2).

II.A.1 ON-RAMP

- The purpose of the Indefinite Delivery Indefinite Quantity (IDIQ) on-ramp is to provide NASA with a mechanism to recompete due to the loss of an existing ISS Commercial Resupply Services (CRS) supplier or to procure a vehicle service that is not currently being provided within the scope of this contract during the period of performance.

 NASA will determine whether those conditions are met prior to synopsizing and conducting the "On-Ramp" competition.
- 1.2 The parties mutually agree that the original solicitation, as revised, will be used as a basis to add additional awardees to the pool of existing awardee(s) to compete on future task orders. The decision to request proposals under the clause will be solely at NASA's discretion and will only occur after this requirement has been synopsized.
 - If NASA issues a solicitation notice, new and existing providers will be allowed to submit proposals within the notice's stated response time. Upon award of each additional contract, NASA shall notify all present Contractors of the award, and the new Contractor shall thenceforth be eligible to compete with all present Contractors for the award of IDIQ task orders.
- 1.3 Existing Contractors may propose services consistent with the Instruction to Offerors of the "On-Ramp" Request for Proposal, as revised. If the existing Contractor(s) chooses not to respond to the "On-Ramp" Request for Proposal, they remain as a candidate for competition of future orders under the terms of the existing contract.

(End of clause)

II.A.2 NFS 1852.232-77 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (MAR 1989)

- (a) Of the total price of CLINs 0001 through 0003, the sum of (3) (4) 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 as required by the payment schedule in Clause II.A.6, until the total price of said CLINs is allotted.
- (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 Section II, Clause 52.212-4(l), Termination for the Government's Convenience of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor

pursuant to Clause II.A.6 and Table II.A.6-1. 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 contract Section II, Clause 52.212-4(1) notwithstanding.

(c) Reserved.

(1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)

(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 sixty (60) days the work will reach a point at which, if the contract is terminated pursuant to contract Section II, Clause 52.212-4(l) of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1.

(3) Reserved.

- (i) The notice shall state the estimate when the point referred to in paragraph I(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, sixty (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 contract Section II, Clause 52.212-4(1).

- (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(s) (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 Termination for Cause clause of this contract. The provisions of this Limitation of Funds clause are limited to the work on

AMENDMENT OF COLIGITATION	MODIFICATION	OF CONTRACT		1. CONTRUCT ID CODE		PAGE 0	F PAGES
2. AMENDMENT CODE CATION NO.	3. 3FF	ECTIVE DATE	4. REQ	USITION/PURCHASE REQ. NO.	5. PF	OJECT NO). (if replicit!**)
0GD014	See	Block 16C					
S. ISSUED BY	CODE JSC		7. 40%	LISTERED BY (I Co or thun i on 6)	COD	JSC	
NASA/Johnson Space Cen Attn: BG / Lauren W. J 2101 NASA Parkway Houston TX 77058-3696			Att.	A/Johnson Space Cent BG / Lauren M. Jo MASA Parkway Ston TX 77058-3596			
R MAME AND ADDRESS OF CONTRACTO PACEX ROCKET RD RAUTHORNE CA 90250)R (No., send, county,	S(== 11.25° Cod)	(3)	AMENDMENT OF SOLICITATION NO.			
				MODIFICATION OF CONTRACT/ORI JO 9GAD 4B			
COCH 3BVL8	11,		B TO JENU	DATED (SEE FEM 13)	a extended.	☐ is not :	atendad.
The chart numbered soficiation is common offers must a between age process of the attempt of the	11. Vind as sat forth it is unencount prior to 8 copies at 8 sat reformer to the 9 ECEIPT OF OFFER conge in offer should indirect, and is nucleif to ONTA (if required)	THE TTE OILY APPLIED THE BOULD HE BOULD	8 TO AMENIAN pended for se in the selection reached for se Resemblers. FAI AND DATE SPE may be made be per end deby as:	2000 OF GODD ANGLES Solpt of Others Solpt of Others Solpt of this amen instant on such copy of LURE OF YOUR ACKS OVALED GEMEI COPIED MAY RESULT IN REJECTION y Elegran or lotter, provided each labeledied.	ig the left rests it in off rests it TO 9E Ri OF YOUR O gram or letter	(a) By com; milled; or (SCEMEO A IFFER. If b makes	i ing c) By T
The chart numbered soficiation is common offers must a between age process of the attempt of the	11. Vind as sat forth it is unencount prior to 8 copies at 8 sat reformer to the 9 ECEIPT OF OFFER conge in offer should indirect, and is nucleif to ONTA (if required)	THE TTE OILY APPLIED THE BOULD HE BOULD	8 TO AMENIAN pended for se in the selection reached for se Resemblers. FAI AND DATE SPE may be made be per end deby as:	ANNU OF EGUETATIONS solpt of Outers the of the amendment on each copy of LURE OF YOUR ACK COVALED GEME (CIPIZO MAY RESULT IN REJECTION y being your or botter, provided each Link	ig the left rests it in off rests it TO 9E Ri OF YOUR O gram or letter	(a) By com; milled; or (SCEMEO A IFFER. If b makes	i ing c) By T
The chart sumbered edicitation is control Offer must electricate properly of this a tioms 8 and 15, and returning capacite better or beligation which include: THE PLACE DESIGNATED FOR THE RI VARIA of the companient your desire to di- reference to the solicitation and this emen 12. ACCOUNTING AND APPROPRIATION See Schedule 13. THIS ITEM ONLY AP CHECK ONE A THIS CHANGE ORDER ORDER NO. IN ITEM 10	11. unerconsent prior to 3 copy and to 3 copy and to 3 copy and to 3 copy and to 4 copy and to 4 copy and to 4 copy and to 4 copy and to 4 copy and to 4 copy and to 4 copy and to 4 copy and to 4 copy and to 4 copy and to 5 co	INCITE ONLY APPIASE on 15. The hour and data he hour and data specified he innercinent (b) By ack statement and american is prior to the Hours of hystolenial, such charge wild prior to the opening he ATION OF CONTEACTED ANT TO: (Specify authority)	S TO AMENUM Injuried of for re- in the seried of con- movinedging reco- t members. FAI may be made it was and deligners. IT not It is the change of the ch	CAPTURE OF EGLETIATIONS Select of Octors Select of Octors Select of this amon limits on a citize televis Upt of this amon limits on a citize televis Upt of this amon limits on a citize televis Upt of Your Acks Covaled General Upt of Your Acks Covaled General Upt of Your Acks Covaled General Upt of Select Interest	the offer substitute of Your Copy of Your Copy of the	(a) By com; milled; or (c) CEIVEO A FFER. If b makes SED I(d) ITEI	i ing c) By T
The chart sumbered edicitation is control Offer must electricate properly of this a tioms 8 and 15, and returning capacite better or beligation which include: THE PLACE DESIGNATED FOR THE RI VARIA of the companient your desire to di- reference to the solicitation and this emen 12. ACCOUNTING AND APPROPRIATION See Schedule 13. THIS ITEM ONLY AP CHECK ONE A THIS CHANGE ORDER ORDER NO. IN ITEM 10	11. unerconsent prior to 3 copy and to 3 copy and to 3 copy and to 3 copy and to 4 copy and to 4 copy and to 4 copy and to 4 copy and to 4 copy and to 4 copy and to 4 copy and to 4 copy and to 4 copy and to 4 copy and to 5 co	INCITE ONLY APPIASE on 15. The hour and data he hour and data specified he innercinent (b) By ack statement and american is prior to the Hours of hystolenial, such charge wild prior to the opening he ATION OF CONTEACTED ANT TO: (Specify authority)	S TO AMENUM Injuried of for re- in the seried of con- movinedging reco- t members. FAI may be made it was and deligners. IT not It is the change of the ch	ATT OF EGENTATIONS Solpt of Others Solpt of Others Solpt of the amendment on each copy of LURE OF YOUR ACK OVALEDGEMENT COPIED MAY RESULT IN REJECTION BY BEIGHTON OF SITES, PROVIDED SITES CORPED THE CONTRACT/ORDER NO.	the offer substitute of Your Copy of Your Copy of the	(a) By com; milled; or (c) CEIVEO A FFER. If b makes SED I(d) ITEI	i ing c) By T
The chart sumbered edicitation is control Offer must electricate properly of this a tioms 8 and 15, and returning capacite better or beligation which include: THE PLACE DESIGNATED FOR THE RI VARIA of the companient your desire to di- reference to the solicitation and this emen 12. ACCOUNTING AND APPROPRIATION See Schedule 13. THIS ITEM ONLY AP CHECK ONE A THIS CHANGE ORDER ORDER NO. IN ITEM 10	11. vied as sat forth in the unerconsent prior to 3 acres in the sate of the	HIGHTOMAY APPLATE AND A STATE OF THE HOUR AND A STATE OF THE HOUR AND A STATE OF THE HOUR AND A STATE OF THE HOUR AND A STATE OF THE HOUR AND A STATE OF THE HOUR AND A STATE OF THE HOUR AND TO THE HOUR AND A STATE OF THE HOUR AND A STATE OF THE HOUR AND A STATE OF THE HOUR AND A STATE OF THE HOUR AND A STATE OF THE HOUR AND A STATE OF THE HOUR AND A STATE OF THE HOUR AND A STATE OF THE HOUR AND A STATE OF THE HOUR AND A STATE OF THE HOUR AND TO THE AND A STATE OF THE HOUR AND THE H	B TO JUNEAU TO THE PROPERTY OF THE CHANGE OF THE CHANGE OF THE ADTHOUGH OF THE	ANNU OF EGLESTATIONS Solpt of Others Solpt of Others Solpt of this amondment on each copy of LURE OF YOUR ACK COVALEDGEME (CIPIZO MAY RESULT IN REJECTION by being your or bitter, provided a each labelledge. DEFIES THE CONTRACT/ORDER NO. SES SET FORTH IN ITEM 14 ARE 30/0 MANISTRATIVE CHANGES (such as ch OF FAR 43.103(b).	the offer substitute of Your Copy of Your Copy of the	(a) By com; milled; or (c) CEIVEO A FFER. If b makes SED I(d) ITEI	i ing c) By T
The reasy sumberral edicitation is common offers must alcooming properly of the alternative property of the alternative of the alternative of the common must be according to the common property of the commo	Tit. vied as sat forth in the unerconsent prior to a secretary of the sec	HIGHTON APPLIES The hour and chas he menoment (b) By act he four to the Hour, hy submitted such charge wild grier to the opening ho ATION OF CONTEACTED ANT TO: (Specify authority her IS MODIFIED TO REF ANT 4, MURSUANT TO TH TERRED INTO PURSUANT	B TO JUNEAU TO THE PROPERTY OF THE CHANGE OF THE CHANGE OF THE ADTHOUGH OF THE	ANNU OF EGLESTATIONS Selpt of Others Selpt of Others Selpt of this amondment on each copy of LURE OF YOUR ACK COVALEDGEME (CIPIZO MAY RESULT IN REJECTION by being your or bitter, provided a each labelledge. DEFIES THE CONTRACT/ORDER NO. SES SET FORTH IN ITEM 14 ARE 30/0 MANISTRATIVE CHANGES (such as ch OF FAR 43.103(b).	the offer substitute of Your Copy of Your Copy of the	(a) By com; milled; or (c) CEIVEO A FFER. If b makes SED I(d) ITEI	i ing c) By T

Son Page 2

15A NO. E AUD TITLE GF SISKER (Type) or print)		As, as herestoters changed, re-noing unchanged and in wall force and effect. 18A, MARIE AND TITLE OF CONTEACTING OFFICER (Type or print) Lauren N. Johnson		
16E CO. GRACTORI.	15C DATE SIGNED	168. UNITED STATES OF AMERICA	18C. DATE SIGNED	
SN 75-0-01-162-0370		STANDARD Flore College Flore College		

Attachment V.M., Special Task Assignments and Studies

- The purpose of this modification is to update Attachment V.M, Special Task. Assignments and Studies Sub-CLIN Schedule for CLIN 0003 to reflect the special studies task orders issued to date.
- As a result of the change mentioned above, Page 148 of the modified conformed contract NNJOPGA04B is hereby attached as page 3 of this modification.
- 3. All other terms and conditions remain unchanged and in full force and effect.

Attachment V.M. SPECIAL TASK ASSIGNMENTS AND STUDIES SUB-CLIN SCHEDULE FOR CLIN 003

This Sub-CLIN Schedule provides contract details for task orders issued under CLIN 0003.

SUB-CLIN	TASK	DATE	DESCRIPTION		PRICE
0003AA	2	4/20/2009	/ L \		1
0003AB	3	12/24/2009	(b)		↓)
0003AC	4	01/25/2010		\	
			The first section of the section of	TOTAL	(b) (4)

AMENDMENT OF SOLICITATION/MODIF	ICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE 1	F PAGES
2. AME: DWENT/MUDIF/CATION NO.	3. GFFECTIVE DATE	4. RE	DUISTRON/PURCHASE REQ. NO.		O. (!f applicable)
000015	See Block 16C	420	338149	Jal.	
	E JSC	7. AE	MANASTERED BY (# other than item 6)	CODE JSC	
MASA/Johnson Space Center Attn: 56 / Lauren B. Johns 2101 MASA Parkway Houston TK 77038-369		210	A/Johnson Space Centu n: BG / Lauren M. Joh 1 NASA Parkway sten TX 77058-3696		
8. NAME AND ADDRESS OF CONTRACTOR (No., 11	ent, youany, State and ZIF Code)	(x) 3/	A AMERIOMENT OF SOL CITATION NO.		
SPACEX 1 ROCKET RD HAXTHORNE CA 20250		ļ 98	DATED (SEE ITEM 11)		
INVESTIGATION OF STREET			A. MODIFICATION OF CONTRACTIORDS	ER NO.	
		10	B. DATED (SEE ITEM 13)		
CODE 3 PAT 2	FACILITY CODE		02/26/2000		
cone 3BAN3	11. THIS TEM ONLY APPLIES	angendine as as 100			
B. THE ABOVE NUMBERED CONTE ay propriation date, etc.) SET FOR	F OFFERS PRIOR TO THE HOUR AIR filter already submitted, such change in ved prior to the opening hour and data required; MODIFICATION OF CONTRACTS/OR D PURSUANT TO: (Specify authority) MACTICRUER IS MODIFIED TO REPLITH IN ITEM 14, PURSUANT TO THE ENT IS ENTERED INTO FURSUANT	NO DATE SP modes appossed. HeU Inc RDERS. IT M THE CHAN LECT THE AL	THE CHARGE SHOT AS EAST OF FAR 43,103(b).	(b) (s described in the contract	4) M 14.
D. OTHER Specify type of modificati		Funde (P	iked-Prios Cantract) (Mar 1	1-69)	
E. IMPORTANT: Contractor Sile not. 14. DESCRIPTION OF AMENDMENT/MODIFICATION	경기 그 그 프라이지 않는데 시간을 하고 있다면 하는데 하는데 하는데 하는데 하는데 하는데 하는데 하는데 하는데 하는데				
Continued Example provided herein all with and condition in the Continue And Title Consideration (Type or ping)	fite occurrent referenced in flent 25. (er 10A, 63 No	rentifore changed, remains in changed and NAME AND TITLE OF CONTRACTING C	in tun topos and effec FFICER (1) year or pri	t.
	1122 DATE STATE	La	THE STATES OF AMERICA!		eg DATE SIGNED
153 COMPACTOR OFFERCR	July mate alliant	1	CHOULD BRUKE		04/19/2010

NSN 7510-01-162-0070 Provious edition unusalitis STAHCARD FORM 30 (REV 10-53) Prescribed by GSA FAR (48 CFR) 53.243 The purpose of this modification is to:

- Increase funding on this contract from (b) (4) to
- Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):
 - (a) Of the total price of CLINs 0001 through 0003, the sum of presently available for payment and allotted to this contract.
 - (c)(1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

II.A. ADDENDUM TO FAR 52.212-4

NOTE: In accordance with paragraph (s) of FAR clause 52.212-4, any inconsistencies between FAR Clause 52.212-4 and the Addendum to FAR 52.212-4 of this solicitation or contract shall be resolved by giving precedence to the Addendum to FAR 52.212-4, except for the paragraphs listed in (s)(2).

II.A.1 ON-RAMP

- 1.1 The purpose of the Indefinite Delivery Indefinite Quantity (IDIQ) on-ramp is to provide NASA with a mechanism to recompete due to the loss of an existing ISS Commercial Resupply Services (CRS) supplier or to procure a vehicle service that is not currently being provided within the scope of this contract during the period of performance.

 NASA will determine whether those conditions are met prior to synopsizing and conducting the "On-Ramp" competition.
- 1.2 The parties mutually agree that the original solicitation, as revised, will be used as a basis to add additional awardees to the pool of existing awardee(s) to compete on future task orders. The decision to request proposals under the clause will be solely at NASA's discretion and will only occur after this requirement has been synopsized.
 - If NASA issues a solicitation notice, new and existing providers will be allowed to submit proposals within the notice's stated response time. Upon award of each additional contract, NASA shall notify all present Contractors of the award, and the new Contractor shall thenceforth be eligible to compete with all present Contractors for the award of IDIQ task orders.
- 1.3 Existing Contractors may propose services consistent with the Instruction to Offerors of the "On-Ramp" Request for Proposal, as revised. If the existing Contractor(s) chooses not to respond to the "On-Ramp" Request for Proposal, they remain as a candidate for competition of future orders under the terms of the existing contract.

(End of clause)

II.A.2 NFS 1852.232-77 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (MAR 1989)

- of the total price of CLINs 0001 through 0003, the sum of (9) (4) 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 as required by the payment schedule in Clause II.A.6, until the total price of said CLINs is allotted.
- (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 Section II, Clause 52.212-4(l), Termination for the Government's Convenience, of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor

pursuant to Clause II.A.6 and Table II.A.6-1. 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 contract Section II, Clause 52.212-4(l) notwithstanding.

(c) Reserved.

(1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)

(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 sixty (60) days the work will reach a point at which, if the contract is terminated pursuant to contract Section II, Clause 52.212-4(I) of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(I) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1.

(3) Reserved.

- (i) The notice shall state the estimate when the point referred to in paragraph I(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, sixty (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 contract Section II, Clause 52.212-4(I).
- (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.
- lf, 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(s) (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 Termination for Cause clause of this contract. The provisions of this Limitation of Funds clause are limited to the work on

. AMENDME	ENT OF SULICITATION	ルルへいにいへんさいへい ヘモ へ	ONTRACT		1. CONTRACT ID CODE	PAG	E OF PACES
		MODIFICATION OF C				1 000000	
	ENTINGER CATION NO	3. EFFECTIVE			REQUISITION/PURCHASE REQ. NO. 00339189	5. PROJEC	T NO. (if applicable)
000016		Sen Bloc	ck 16C	-	AOMINISTERED BY (if other than Item 6)	CODE T	30
. ISSUED BY	Υ	CCCE JSC		-	Market A	1000	sc
Attn: B 2101 MA	chnson Space Cer SG / Lauren M. C SEA Parkway TX 77058-3696			A:	ASA/Johnson Space Center ttn: EG / Lauren N. John: 101 IUSA Parkway custon TK 77058-3696	sori	
L NAME AND	DADURESS OF CONTRACTO	UR (No., litres), commy, State and	Z/P Code)	(v)	BA, AMERIDHENT OF SOLICITATION NO.		
PACEX ROCKET	T RD NE CA 90250				SP. DATED (SEE ITEM 11)		
				×	IOA MODERCATION OF CONTRACT/ORDER	NO.	
					Tue, DATE D (+ FITCM 13)		
:00E 3p	BVLE	FACILITY CO.	ië .	1	02/26/2009		
		11. YHS 111	M ONLY APPLIES TO	AME	NOMENTS OF SOLICITATIONS		
to the solid Z. ACCOUN	itation and inis statistiment, as ITING AND APPROPRIATION	id is received price to the ope	ning hour and date spec	riBad.	de hy telegram er letter, provided each talegram noneas:	(p)	(4)
ee Sch					MODIFIES THE CONTRACT/ORDER NO. AS D	COCPUSES IN	PTEAL 44
CHECK CINE	 						
					ANGES SET FORTH IN ITEM 14 ARE MADE IN ADMINISTRATICATION CHANGES (such as change ITY OF FAR 45.105,0).		
	C. THIS SUPPLEMENTAL	AGREEMENT IS ENTERED	NTO PURSUANT TO A	ហ្វាក	овлу ск.		
х х	C. THIS SUPPLEMENTAL	AGREEMENT IS ENTERED modification and emocity 18 1 1 2 2 2 2 2 2 - 7 7 7 1 1 1 1	NTO PURSUANT TO A	ហ្វាភ	OBIYER.	19)	
IMPORTAN	C. THIS SUPPLEMENTAL. E. CHIER (Specify type of Clause II.A.2, DF	AGREEMENT IS ENTERED modification and elencity 1 1002 232-77 Lin Xis not Us required to	NTO PURSUANT TO A Italian of Hund a sign this document an	UTA	OBIYER.	19; ng ofiice.	
IMPORTAN	C. THIS SUPPLEMENTAL. E. CHER (Specify type of Classes II.A.2, OF NT: Contractor THEN OF AMENEMENTATOR	AGREEMENT IS ENTERED modification and elencity 1 1002 232-77 Lin Xis not Us required to	NTO PURSUANT TO A Italian of Hund a sign this document an	UTA	CRITY CA. (Figure - Fire Contract) (bins 190 Im 0 copies to the issue	19; ng ofiice.	
ee Pag	C. THIS SUPPLEMENTAL. E. CHIER (Specify type of Clack II.A.2, DF NT: Contractor TICN OF AMENDMENT/MOD	AGREEMENT IS ENTERED mochipation and exercisy is 1902, 232-77, Lin Xis not. Tills required to FIGATION (Organized by U	itation of Mund itation of Mund asign this decument and OF accioun hasolings, in	d returned of the state of the	CRITY CA. (Figure 1- 1 for Contract) (blast 19) Im 0 copies to the issue ing schools to must subject matter where feed	9) ng office. ibia.)	······································
ee Pag	C. THIS SUPPLEMENTAL. E. CHIER (Specify type of Clack II.A.2, DF NT: Contractor TICN OF AMENDMENT/MOD	AGREEMENT IS ENTERED modification and exercisy if 1902, 232-77, List Mis not. "Tis required to UFICATION (Organized by U	itation of Mund itation of Mund asign this decument and OF accioun hasolings, in	d returned of the state of the	(Figs.)— (See Contract) (blast 19) Im O copies to the issue To solve the second proper intervener feet	9) ng office. ibia.)	······································
ee Pag	C. THIS SUPPLEMENTAL. E. CHIER (Specify type of Clause II.A.2, DF NT: Contractor TICN OF AMENDMENTANO 2 4 4 4 4 4 4 4 4 4 4 4 4	AGREEMENT IS ENTERED modification and exercisy if 1902, 232-77, List Mis not. "Tis required to UFICATION (Organized by U	itation of Mund itation of Mund asign this decument and OF accioun hasolings, in	of at the state of	CRITY CA. (Figure 1- 1 for Contract) (blast 19) Im 0 copies to the issue ing schools to must subject matter where feed	9) ng office. ibia.)	······································

NSN 7510-01-152-1070 Previous edition unu sable STANDARD FORM 3C (REV. 10-83) Frescribed by GSA FAR (48 CFR) 53,243 The purpose of this modification is to:

- 1. Increase funding on this contract from (b) (4)
- Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):
 - (a) Of the total price of CLINs 0001 through 0003, the sum of presently available for payment and allotted to this contract.
 - (c)(1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

II.A. ADDENDUM TO FAR 52.212-4

NOTE: In accordance with paragraph (s) of FAR clause 52.212-4, any inconsistencies between FAR Clause 52.212-4 and the Addendum to FAR 52.212-4 of this solicitation or contract shall be resolved by giving precedence to the Addendum to FAR 52.212-4, except for the paragraphs listed in (s)(2).

II.A.1 ON-RAMP

- 1.1 The purpose of the Indefinite Delivery Indefinite Quantity (IDIQ) on-ramp is to provide NASA with a mechanism to recompete due to the loss of an existing ISS Commercial Resupply Services (CRS) supplier or to procure a vehicle service that is not currently being provided within the scope of this contract during the period of performance.

 NASA will determine whether those conditions are met prior to synopsizing and conducting the "On-Ramp" competition.
- 1.2 The parties mutually agree that the original solicitation, as revised, will be used as a basis to add additional awardees to the pool of existing awardee(s) to compete on future task orders. The decision to request proposals under the clause will be solely at NASA's discretion and will only occur after this requirement has been synopsized.
 - If NASA issues a solicitation notice, new and existing providers will be allowed to submit proposals within the notice's stated response time. Upon award of each additional contract, NASA shall notify all present Contractors of the award, and the new Contractor shall thenceforth be eligible to compete with all present Contractors for the award of IDIQ task orders.
- •1.3 Existing Contractors may propose services consistent with the Instruction to Offerors of the "On-Ramp" Request for Proposal, as revised. If the existing Contractor(s) chooses not to respond to the "On-Ramp" Request for Proposal, they remain as a candidate for competition of future orders under the terms of the existing contract.

(End of clause)

II.A.2 NFS 1852.232-77 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (MAR 1989)

- (a) Of the total price of CLINs 0001 through 0003, the sum of (b) (4) 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 as required by the payment schedule in Clause II.A.6, until the total price of said CLINs is allotted.
- (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 Section II, Clause 52.212-4(l), Termination for the Government's Convenience, of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor

pursuant to Clause II.A.6 and Table II.A.6-1. 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 contract Section II, Clause 52.212-4(1) notwithstanding.

(c) Reserved.

(1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)

(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 sixty (60) days the work will reach a point at which, if the contract is terminated pursuant to contract Section II, Clause 52.212-4(l) of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1.

(3) Reserved.

(i) The notice shall state the estimate when the point referred to in paragraph I(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, sixty (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 contract Section II, Clause 52.212-4(1).

(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(s) (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.

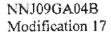
(g) The provisions of this clause with respect to termination shall in no way be deemed to limit the rights of the Government under the Termination for Cause clause of this contract. The provisions of this Limitation of Funds clause are limited to the work on

		1. CONTRACT D CCOS	PAGE OF PAGES
AMENDMENT OF SOLICITATION/MOD	HEIGATION OF CONTRACT		1 1 3
A MICHENENTIAGOF CATION NO	3 EFFECTIVE DATE	4. REQUISITION/PURCHASE REG. NO.	1. PROJECT NO. (# spp.unble)
000017	See Block 160		
C SBUED NY C	OOE JSC	T. ADMINISTERED BY (If either than fforth)	COBE JSC
MASA/Johnson Space Conter Acto: 85 / Lauren S. Johnson 2101 MASA Parkway Bouston TX 77958-3896		NASA/Johnson Space Center Attn: 8G / Lauren N. Johr 2101 NASA Parkway Houston FX 17058-3696	
e nome and address of contractor in Spacex 1 rocket by Hawathorne ca 94250	, meet, e sely, size and to cost	(x) RA AMENOWENT OF SOLICITATION NO	
2		X IND. MORP CATION OF CONTRACTIONOG X INDIC SGREATE 108 UNTED (SOLITEM 13)	i NO.
coce 3BVL8	FACILITY CODE	02/26/2009	
224.24	13. THE ITEM ORLY APPLIE	S TO AMENDMENTS OF SOLICITATIONS	
Home 8 and 15, and returning separate action or tale prain which includes a ref	nent phor to the hour and date as earlied cripies of the antendence. (b) By lich increase the sci-diation and americans TOP OFFIRS PRIOR TO THE HOUR. In other eleasty submitted, such change chief phor to the opening hour and do	i in the solectable of as amended, by also of the totalweight structured in project of this emercianest on each capy of the Knumbers. FALLIZE OF YOURI ACKNOYALEDGEMENT AND CATE SPECIFIED MAY RESIAT IN REJECTION OF In ay bill case by Internal Indoor, provided and telegra-	to be received at Your Ceper. If by
See Schedule			
13, THIS ITEM ONLY APPLIES	TO HODIFICATION OF CONTRACTS/	orders. It modifies the contractionder No. As	Described in Item 14.
GRECK CAR A THIS CHANGS ORCER TO ISSE	LED PURSALINT TO: (Specify sufficient)	y) THE CHANGES SET FORTH IN ITEM 14 ARE MADE D	n the contract
1		FLECT THE ADMINISTRATIVE CHANGES (such as chang & Authority of FAR 43.100(b).	es in paying office.
C THIS SUP A EMP YEAR NORM	ment is entered out putsuan	TTC AUTHORITY OF:	
X Hitual Agreement			
E IMPORTANT: CO TOCK	The second secon	seri and relian	ing the
		ngs, indiving concretenesserved subject matter where he	NOTE)

See Page 2

Continued			
Exercise to provided hereon, in fection in the distance of the	referenced in form \$4. or 10	A, as herety'on changed, remains unchanged and of the force of the large of the lar	or p.m.)
Julie A. Jien / Contrac	ts Officer	tauren M. Johnson	
ILA COMPACTO VOTTEROR	15C 0 1E 50 (17)	THE PROPERTY OF AVERTING	16C SATE 819 (35)
Can Made they trough	OF YAP SI	July Land Marin	5/15/10
NISH 7541 CH-NUZ-GOTO Provides actions unsereste		STAMMARD Promoted b	

FAR (48 CM) 53.243





Submission of Revised Work Plans:

- The purpose of this modification is to revise Table V.B-1 DRDS REQUIRED NEAR RFP RESPONSE. In accordance with II.A.20 Adjustments to Mission Schedules, the Mission Work Plans require concurrence of the COTR prior to Authorization to Proceed (ATP) for all missions. Revisions to Mission Work Plans shall be delivered to NASA no later than 30 days prior to ATP with any Mission; and following ATP, within 30 days of any mission's schedule changes in accordance with DRD C1-8, Work Plans.
- 2. As a result of this change revised, Page 79 of the conformed contract NNJ09GA04B is attached here to as page 3 of this modification.
- 3. All other terms and conditions remain unchanged and in full force and effect.



Item	Document	Approve/	Initial	Recurrence	Reference
		Review	Due Date		
C1-1	Reserved		5 # # # . 4	T.T. 1.	SOW 2.5.4
C1-2	Mishap Notification,	Review	With	Updates at	SOW 2.5.4
1	Investigation and Contingency		Proposal	Program Reviews	
	Action Plan			Keviews	
C1-3	Reserved		7. 7. T.	Y 7 1 - 4 4	COW 2 1 2
C1-4	Configuration Management Plan	Review	With	Updates at	SOW 2.1.2
ŀ			Proposal	Program	
				Reviews	60111
C1-5	Export Control Plan	Approve	Contract	Updates at	SOW
İ			Award	Program	2.1.3,
			+30 days	Reviews	2.3.3.3.1
C1-6	Reserved				AAMI A
C1-7	Mission Integration & Operations	Approve	With	Updates at	SOW 2.1,
	Management Plan		Proposal	Program	2.3.1,
				Reviews	2.4.3.1,
					2.4.3.2,
					2.4.7.2
C1-8	Work Plan	Approve	With	ATP minus	SOW 2.3.1
			Proposal	30 days and	
				following	
				ATP, within	
				30 days of	
				any	
				mission's	
				schedule	
(4)				changes	
C1-9	Reserved				
C-10	Safety Data Package	Review	When	Each	SOW 2.5.3
			delivered	mission	
]			to Range		

TABLE V.B-2 RECURRING DRDS

Item	Document	Approve/ Review	Initial Due Date	Recurrence	Reference
C2-1	Formal Review Documentation	Review	First formal review	At every review	SOW 2.1.1
C2-2	Integrated Schedules	Review	T.O. Award +30 days	Updates only, monthly	SOW 2.1.4

			1. CONTRACT ID CODE	FAGE OF PAGES
ENDMENT	OF SOLICITATION/MODIFIC	ATION OF CONTRACT		1 4
MENL WENTA	MODIFICATION NO.	S. EFFECTIVE DATE	4. REQUISITION FUNCTION AND NO. 14200344888	5. FROJECT NO. (If applicable
00018	CODE	See Block 160	7. ADM STERED BY (If other the . ibm C)	CODE LISC
tn: BG J1 MASA	son Space Center / Lauren N. Johnson Farkway x 77055-3696	JSC	MASA/Johnson Space Cent Attn: BC / Lauren N. Jo 2101 MASA Parkway Houston TX 77058-3696	ber bhndon
ACEM POCKET 1	CRESS OF CONTRACTOR (W., s/mer RD CA 90250	s, ethinity, filate and ZIP Coto)	(X) PA AMENUMENT OF SOLICITATION NO OB, DATED (SOILITEM 11) ** 10A MODIFICATION OF CONTRACTION ** 10TH J D 9 GA D 1 B	
			A TO DATED (DESCRIPTION AS)	
2000 CO			13B. DATED (SEE ITEM 13)	
The above triff Offers must ac	nbered solicitation is amended as set to knowledge receipt of this emendment	forth in Item 14. The hour and det prior to the hour and dete specific	C2/26/2003 ES TO AMENDMENTS OF SOLICITATIONS e specified for receipt of Offices of in the solicitation or as amended, by one of the followers receipt of this amendment on each copy	
The above but offers must ac items 8 and 16 separate latter THE PLACE Divitue of this at to the solidital 2. ACCOUNTIN	nibered colicitation is amended as set is knowledge receipt of this amendment is, and returning or or letegram which includes a reference Bislanated FOR THIL RECEIPT OF mendment you desire to change an officer and this amendment, and is received AND APPROPRIATION DATA (If re-	11. THIS FIEM ONLY APPLIF forth in Itera 14. The hour and det prior to the hour and dete epocific opies of the amendment; (b) by ec- to the solicitation and amendment OFFERS PRIOR TO THE HOUR- for attractly submitted, such change ed prior to the opening hour and de-	C2/26/2009 ES TO AMENDMENTS OF SOLICITATIONS e specified for receipt of Offices d in the solicitation or as amendment on each copy at numbers. FARURE OF YOUR ACKNOWLEDGEM AND DAT! SPECIFIED MAY RESULT IN REJECTIK a may be made by thiegram or latter, provided each te	wing methods: (a) By completing of the citer submitted; or (c) By SENT TO BE RECEIVED AT SN OF YOUR OFFER. If by
The above but Offers must ac items 8 and 15 separate latter THE PLACE D virtue of this at to the solidital 2. ACCOUNTIN	nibered colloitation is omension as set it snowledge receipt of this amendment is, and returning or or telegram which includes a reference signated FOR THE RECEIPT OF mendment you desire to change an office and this amendment, and is received an APPROPRIATION DATA (if received and all of the set	11. THIS FEM ONLY APPLIF forth in Itero 14. The hour and date prior to the hour and date specific opies of the amendment; (b) by ac- to the scriptistion and amendment oppers and amendment of the scriptistion and amendment for affiredly submetted, such change ed prior to the opening hour and disquired)	C2/26/2003 ES TO AMENDMENTS OF SOLICITATIONS E specified for receipt of Offices of in the solicitation or as amended, by one of the following receipt of this amendment on each copy at numbers, FAXURE OF YOUR ACKNOWLEDGEN AND DATE SPECIFIED MAY RESULT IN REJECTION a may be made by this gram or latter, provided each te ate specified. Not Increase:	wing methods: (a) By completing of the citer submitted; or (c) By SERECEIVED AT DIS OFFER If by Segrem or setter makes reference
The above that Offers must ac items 8 and 15 separate letter THE PLACE Divided to the so items 2. ACCOUNTINGER SCHOOL CHECK ONE	Intered colicitation is amended as set is snowledge receipt of this amendment is, and returning or reference in the snowledge receipt of this amendment of the gram which includes a reference its includes a reference its includes a reference its includes a reference in this amendment, and is received an APPROPRIATION DATA (If red to 1. e) 13. THIS ITEM ONLY APPLIES TO ORDER NO. IN ITEM 10A.	11. THIS FEM ONLY APPLIF forth in Itero 14. The hour and date prior to the hour and date specific opies of the amendment; (b) by ac- to the scrictistion and amendment oppers PRIOR TO THE HOUR for affredly submetted, such change ed prior to the opening hour and di- equired) MODIFICATION OF CONTRACTS O PURSUANT TO: (Specify author)	C2/26/2003 ES TO AMENDMENTS OF SOLICITATIONS e specified for receipt of Offices d in the solicitation or as ameridad, by one of the follow kinowledging receipt of this amendment on each copy at numbers. FARLIRE OF YOUR ACKNOWLEDGEN AND DATE SPECIFIED MAY RESULT IN REJECTION AND DATE SPECIFIED MAY RESULT IN REJECTION amay be made by thiergram or letter, provided each te also specified. Not Increase: FORDERS, IT MODIFIES THE CONTRACTIONDER NO. THE CHANGES SET FORTH IN ITEM 14 ARE M.	wing methods: (a) By completing of the citer submitted; or (c) By SERECEIVED AT DIN OF YOUR OFFER. If by Wingram or setter makes reference (b) (4) O. AS DESCRIBED IN ITEM 14. ADE IN THE CONTRACT
The above his Offers must ac items 8 and 16 separate letter THE PLACE D virtue of this as items 2. ACCOUNTINGER SCHECK ONE	Intered colicitation is amended as set is knowledge receipt of this amendment is, and returning of at lategram which includes a reference being NATED FOR THIL RECEIPT OF THE RECEIPT OF AND APPROPRIATION DATA (If received in the set of the set	11. THIS FEM ONLY APPLIED TO RESULT TO THE MODIFICATION OF CONTRACTS DEPENDENT OF THE HOUR and delte specific opies of the amendment; (b) by each to the scrictation and amendment of the scrictation and amendment of the scrictation and amendment of the scrictation and amendment of the scrictation of the scrictation of the scrictation of contracts DEPURSUANT TO: (Specify authority of the script of the scr	C2/26/2003 ES TO AMENDMENTS OF SOLICITATIONS E specified for isocipit of Offices of in the solicitation or as americad, by one of the following interesting the solicitation or as americad, by one of the following moving the solicitation or as americad, by one of the following moving the solicitation of	wing methods: (a) By completing of the citer submitted; or (c) By SERECEIVED AT DIN OF YOUR OFFER. If by Wingram or setter makes reference (b) (4) O. AS DESCRIBED IN ITEM 14. ADE IN THE CONTRACT
The above his Offers must active must active must active must active must active must active of one at the PLACE Dividue of one at the solicitation of the solicitatio	nbered coloitation is amended as eat to knowledge receipt of this amendment is, and returning of our triegram which includes a reference BIGNATED FOR THIL RECEIPT OF mendment you dearle to change an efficient and this amendment, and is received and APPROPRIATION DATA (if reduced to the color of the colo	11. THIS FEM ONLY APPLIED THE INTERNATION OF CONTRACTS DEPURSUANT TO: (Specify author) DEPURSUANT TO: (Specify author) ACT/ORDER IS MODIFIED TO RETHE IN ITEM 14, PURSUANT TO THE INTERNATION OF CONTRACTS PURSUANT TO: (Specify author) ACT/ORDER IS MODIFIED TO RETHE IN ITEM 14, PURSUANT TO THE INTERNATION OF CONTRACTS ACT/ORDER IS MODIFIED TO RETHE IN ITEM 14, PURSUANT TO THE INTERNATION OF CONTRACTS ACT/ORDER IS MODIFIED TO RETHE IN ITEM 14, PURSUANT TO THE INTERNATION OF CONTRACTS ACT/ORDER IS MODIFIED TO RETHE INTERNATION OF CONTRACTS ACT/ORDER INTERNATION OF CONTRACTS ACT/ORDER INTERNATION OF CONTRACTS ACT/ORDER INTERNATION OF CONTRACTS ACT/ORDER INTERNATION OF CONTRACTS ACT/ORDER INTERNATION OF CONTRACTS ACT/ORDER INTERNATION OF CONTRACTS ACT/ORDER INTERNATION OF CONTRACTS ACT/ORDER INTERNATION OF CONTRACTS ACT/ORDER I	C2/26/2003 ES TO AMENDMENTS OF SOLICITATIONS e specified for isocipit of Offices din the solicitation or as amended, by one of the following working receipt of this amendment on each copy at numbers. FAXURE OF YOUR ACKNOWLEDGEN AND DATE SPECIFIED MAY RESULT IN REJECTION AND DATE SPECIFIED MAY RESULT IN REJECTION AND DATE SPECIFIED MAY RESULT IN REJECTION AND DATE SPECIFIED MAY RESULT IN REJECTION AND THE CHANGES OF THE CONTRACTION DER NI FORDERS. IT MODIFIES THE CONTRACTION DER NI TO THE CHANGES SET FORTH IN ITEM 14 ARE MEDITAL THE ADMINISTRATIVE CHANGES (such as HE AUTHORITY OF FAR 43.103(b). NOT TO AUTHORITY OF:	wing methods: (a) By completing of the citer submitted; or (c) By tent to BE REDENED AT DO NO FYOUR OFFER. If by wingram or setter makes reference (b) (4) D. AS DESCRIBED IN ITEM 14. ADE IN THE CONTRACT changes in paying office,
The above his Offers must active must active must active must active must active must active of one at the PLACE Dividue of one at the solicitation of the solicitatio	nbered coloitation is amended as eat to knowledge receipt of this amendment is, and returning of our triegram which includes a reference BIGNATED FOR THIL RECEIPT OF mendment you dearle to change an efficient and this amendment, and is received and APPROPRIATION DATA (if reduced to the color of the colo	11. THIS FEM ONLY APPLIED THE INTERNATION OF CONTRACTS DEPURSUANT TO: (Specify author) DEPURSUANT TO: (Specify author) ACT/ORDER IS MODIFIED TO RETHE IN ITEM 14, PURSUANT TO THE INTERNATION OF CONTRACTS PURSUANT TO: (Specify author) ACT/ORDER IS MODIFIED TO RETHE IN ITEM 14, PURSUANT TO THE INTERNATION OF CONTRACTS ACT/ORDER IS MODIFIED TO RETHE IN ITEM 14, PURSUANT TO THE INTERNATION OF CONTRACTS ACT/ORDER IS MODIFIED TO RETHE IN ITEM 14, PURSUANT TO THE INTERNATION OF CONTRACTS ACT/ORDER IS MODIFIED TO RETHE INTERNATION OF CONTRACTS ACT/ORDER INTERNATION OF CONTRACTS ACT/ORDER INTERNATION OF CONTRACTS ACT/ORDER INTERNATION OF CONTRACTS ACT/ORDER INTERNATION OF CONTRACTS ACT/ORDER INTERNATION OF CONTRACTS ACT/ORDER INTERNATION OF CONTRACTS ACT/ORDER INTERNATION OF CONTRACTS ACT/ORDER INTERNATION OF CONTRACTS ACT/ORDER I	C2/26/2003 ES TO AMENDMENTS OF SOLICITATIONS e specified for receipt of Offices d in the solicitation or as amended, by one of the following security of this amendment on each copy at numbers. FARLIRE OF YOUR ACKNOWLEDGEN AND DATE SPECIPLED MAY RESULT IN REJECTION AND DATE SPECIPLED MAY RESULT IN REJECTION AND DATE SPECIPLED MAY RESULT IN REJECTION AND DATE SPECIPLED MAY RESULT IN REJECTION AS SPECIFIED THE CONTRACTION OF A SECURITY OF FAR 43.103(a). FURCH THE CHANGES SET FORTH IN ITEM 14 ARE MELECT THE ADMINISTRATIVE CHANGES (such as HE AUTHORITY OF FAR 43.103(a). INTITO AUTHORITY OF:	wing methods: (a) By completing of the citer submitted; or (c) By tent to BE REDENED AT DO NO FYOUR OFFER. If by wingram or setter makes reference (b) (4) D. AS DESCRIBED IN ITEM 14. ADE IN THE CONTRACT changes in paying office,

See page 2

Except as provided herein, will take and conditional of the Goodment referenced in Fam 9A or 10 ISA, NAME AND TITLE OF E.GNER (Type or print)		TOP HAME AND THE OF CONTRACTING OFFICER (Type or part) Launen H. Johnson		
			180. DATE SIGNED	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	A QUEUN, July	06/15/2010	
(Signature of person Julius Ized to sign)		(Simetal a of Guitghting Online)	DARD FORM 30 (REV. 10-93)	

NSN 7540-01-121-6070 Previous adicon unusable Prescribed by GSA FAR (48 CFR) 53.243 The purpose of this modification is to:

- 1. Increase funding on this contract from (b) (4)
- Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):
 - (a) Of the total price of CLINs 0001 through 0003, the sum of presently available for payment and allotted to this contract.
 - (c)(1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

II.A. ADDENDUM TO FAR 52.212-4

NOTE: In accordance with paragraph (s) of FAR clause 52.212-4, any inconsistencies between FAR Clause 52.212-4 and the Addendum to FAR 52.212-4 of this solicitation or contract shall be resolved by giving precedence to the Addendum to FAR 52.212-4, except for the paragraphs listed in (s)(2).

II.A.1 ON-RAMP

- The purpose of the Indefinite Delivery Indefinite Quantity (IDIQ) on-ramp is to provide NASA with a mechanism to recompete due to the loss of an existing ISS Commercial Resupply Services (CRS) supplier or to procure a vehicle service that is not currently being provided within the scope of this contract during the period of performance. NASA will determine whether those conditions are met prior to synopsizing and conducting the "On-Ramp" competition.
- 1.2 The parties mutually agree that the original solicitation, as revised, will be used as a basis to add additional awardees to the pool of existing awardee(s) to compete on future task orders. The decision to request proposals under the clause will be solely at NASA's discretion and will only occur after this requirement has been synopsized.
 - If NASA issues a solicitation notice, new and existing providers will be allowed to submit proposals within the notice's stated response time. Upon award of each additional contract, NASA shall notify all present Contractors of the award, and the new Contractor shall thenceforth be eligible to compete with all present Contractors for the award of IDIQ task orders.
- 1.3 Existing Contractors may propose services consistent with the Instruction to Offerors of the "On-Ramp" Request for Proposal, as revised. If the existing Contractor(s) chooses not to respond to the "On-Ramp" Request for Proposal, they remain as a candidate for competition of future orders under the terms of the existing contract.

(End of clause)

II.A.2 NFS 1852.232-77 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (MAR 1989)

- (a) Of the total price of CLINs 0001 through 0003, the sum of (b) (4) 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 as required by the payment schedule in Clause II.A.6, until the total price of said CLINs is allotted.
- (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 Section II, Clause 52.212-4(l), Termination for the Government's Convenience, of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor

pursuant to Clause II.A.6 and Table II.A.6-1. 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 contract Section II, Clause 52.212-4(1) notwithstanding.

- (c) Reserved.
 - (1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
 - (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 sixty (60) days the work will reach a point at which, if the contract is terminated pursuant to contract Section II, Clause 52.212-4(1) of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(1) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1.
 - (3) Reserved.
 - (i) The notice shall state the estimate when the point referred to in paragraph I(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, sixty (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 contract Section II, Clause 52.212-4(1).
- (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(s) (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 Termination for Cause clause of this contract. The provisions of this Limitation of Funds clause are limited to the work on

		Wast of Antible	(TI. CONTRACT & CODE		PACE OF	PAUSB
AMENOME	NT OF SOLICITATION MODIFIC	TION OF CONTRACT				1	3
AMENTIL	ITARDO-PICATION NO.	S. DE SCHUE DATE	4, Fee	QUISITION PUNCHASE REQ. NO.	5. PR(DIECT NO	(il applicable)
000019		See Block 16C			CARE	1	
S ISSUED BY	GODE	jsc	7. 61	DATINGSTERED BY (If other than Hern 6)	COUR	JSC	
NASA/Johnson Space Center Attnr BC / Leuren W. Johnson 2101 MASA Parkway Houston TX 77058-3696		NASA/Johnson Space Center Attn: BG / Lauren N. Johnson 2101 NASA Parkway Houston TM 77058-3696					
B, HAME AND	ADDRESS OF CONTRACTOR (ML. 1144)	county, State and TIP Code	(x)	A AMENDMENT OF SOLICITATION NO.			
DRACEX E ROCKET RD HAYTHORNE CA 90R50			99. DATED (SEE ITEM 11)				
		FACILITY CODE		DA MODIFICATION OF CONTRACT/ORDER NO INJUSCA 34B CO. DATEO (SEE ITEM 15) D2/2\$/2009). 		
CODE 35	Are	FI. IN STREMONLY APPLIES TO					
Others must literas 6 and separate to The PLACE vote of this to the social	Tid and retroing to the state a mission of the control of the cont	high to the hour and date specifical in the case of the amendment, (b) the adventions to pre-call status and assumption in while in PERS PRIOR TO THE HOUR AND abledy scientised, such change may be prior to the opening hour and date open prior to the opening hour and date open	dging s pers. P IATE S o mate	records of Others	odie (e r eubit IE REG UR OF	By completed or (constituted AT	alting } is y
	NG AND APPROPRIATION DATA (II mg	uiro(f)					
See Sch	12. THIS ITEM ONE Y APPLIES TO BE	DOFFICATION OF CONTRACTS/ORDER	18. IT	MODIFIES THE CONTRACTIONDER NO. AS DES	ĊKIBE	D H: ITEM	ц
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. 18 ITEM 10A.						
· · · · · · · · · · · · · · · · · · ·	B. THE ABOVE NUMBERED CONTRAC appropriation date, ric.) SET FORTH	TIOHOER IS MODIFIED TO REFLECT IN ITEM 14, PLRSUANT TO THE AUT	THE A	DUINISTRATIVE CHANGES (such se changes a Y OF PAR 43,163(b).	n payen	g office,	
	C THIS ELPREVIOUS! / SPEEMEN	S ENTERED NTO PURSUANT TO	UTHO	RiTY OF			
	n other (Specify type of monthered). Mutual Agreement of						
X . i		fr is required to sign this doct ment an	d cen =	a I copies to the issuing	óff þr.		
E. WAPORTAN	7: Contractor Dis.nut.	in its teditive to 2 for at 3 coct would be	1 214	7			

14. DESCRIPTION OF AMENDMENT MODIFICATION (Organized by UCF section Assuring, Including soldiston-contract analysis matter whole financials

See Tage 2

Except of provided herein, all terms and cortainers of the dome the referenced to take 9A or 10A, as nationalize changed, remains unchanged and in full force and effect.					
FUL MASSE AND THEE OF SIGNER (Type or part)		THA WHILE AND TITLE OF CONTRACTING OFFICER (1) PT OF PRINT			
Julie A. Jiess /GATT	acts Officer	Lauren H. Johnson			
TER COMMACTORION FROM	15C DATE SIGNED	THE WHITED STATES OF AMERICA	15C. DATE SIGNED		
Santa experience and a section of the section of th	e July 10	All Williams of Day 10th College	7/6/10		
NON 7548-01-152-0370 Previous extrem Christian		STANDARD F Prescribed by FAR (4t) CFR)			

Attachment V.M., Special Task Assignments and Studies

- The purpose of this modification is to update Attachment V.M. Special Task
 Assignments and Studies Sub-CLIN Schedule for CLIN 0003 to reflect the special
 studies task orders issued to date.
- As a result of the change mentioned above, Page 149 of the modified conformed contract NNJ09GA04B is hereby attached as page 3 of this modification.
- 3. All other terms and conditions remain unchanged and in full force and effect.

E. B. Saraka Radini Androlla (

Attachment V.M. SPECIAL TASK ASSIGNMENTS AND STUDIES SUB-CLIN SCHEDULE FOR CLIN 003

This Sub-CLIN Schedule provides contract details for task orders issued under CLIN 0003.

SUB- CLIN	TASK ORÐER	REVISION	DATE		DESCRIPTION		PRICE
0003AA	2	BASIC	4/20/2009				
0003AB	3	BASIC	12/24/2009				
0003AB	3	Α	1/13/2010				4)
0003AB	3	В	4/07/2010	\			- /
0003AB	3	С	6/29/2010				
0003AC	4	BASIC	1/25/2010				
0003AC	4	A	6/02/2010				

						TOTAL	(b) (4)

a remainate	INT OF SOLICITATION/MODIFIC	CATION OF C	ONTRACT		1. CONTRACT ID CODE	PAGE	OF PAGES
					EQUISITION/PURCHASE REQ. NO.	1 PROJECT	I NO. (If applicable)
	NT/MODIFICATION NO.	3. EFFECTIVE		4. R	EQUISIT RANPURCHASE REG. NO.	S. PROJEC	(In apprentice)
000020 6 ISSUED BY	CODE	See Blo	CK 16C	7.1	OMINISTERED BY (If other than liom 6)	CODE JS	SC .
NASA/Jo Attn: B 2101 NA	hnson Space Center G / Judy F. Ross SA Parkway TX 77058-3696	JSC		NA At 21	SA/Johnson Space Center tn: BG / Judy F. Ross .01 NASA Parkway buston TX 77058-3696	12	
8. NAME AND	ADDRESS OF CONTRACTOR (No., size	et, county, State en	ZIP Code)	(x)	SA AMENOMENT OF SOLICITATION NO.		
SPACEX 1 ROCKET HAWTHORN	r RD NE CA 90250				98. DATED (SEE ITEM 11)		
				^	18A MODIFICATION OF CONTRACTIORDER N NNJ 0 9GA 0 4 B	io.	
SDAT		FACILITY CO	ne -		108. DATED (SEE ITEM 13) 02/26/2009		
CODE 3E	NT8	1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			DE/26/2009 DEFENTS OF SOLICITATIONS		
	13. THIS ITEM ONLY APPLIES TO A THIS CHANGE ORDER IS ISSUED ORDER NO. IN ITEM 10A. B. THE ABOVE NUMBERED CONTR. appropriation date, etc.) SET FOR C. THIS SUPPLEMENTAL AGREEME	MODIFICATION (PURSUANT TO ACTIONDER IS N TH IN ITEM 14, P	OF CONTRACTS/ORDERS (Specify authority) THE (ODDIFIED TO REFLECT I URSUANT TO THE AUTH INTO PURSUANT TO AU	CHV	MODIFIES THE CONTRACTIORDER NO. AS DE NIGES SET FORTH IN ITEM 14 ARE MADE IN 1 ADMINISTRATIVE CHANGES (such as changes ITY OF FAR 43 103(b).	HE CONTRA	ст
х	FAR 52.243-1, Chang	es-Fixed	Price, Aug 19	8.	7, Alternate II		
	D. OTHER (Specify type of modification	and authority)		-			
					m 1 copies to the issuin		***************************************
The pur	TION OF AMENDMENT/MODIFICATION	N/Organized by C ation is	lo sign this document and ICF section headings, incident to add govern	ladii	ng sektimien benirati subject malter where feasi ent property clauses to t	bie.)	tract.
	oxided herein, all terms and conditions of UND TITLE OF SIGNER (Type or print)	the document ref	eranged in Item SA or 10A	16	heretotore changed, remains unchanged and in fi IA, NAME AND TITLE OF CONTRACTING OFFI	ell force and e CER (Type or	flect. print)
Time	e Jiku Contra	ds Off	Sice.C	J	udy F. Ross		
	ACTOR/OFFEROR		15C. DATE SIGNED	16	IB. UNITED STATES OF AMTRICA		16C. DATE SIGNED
Sink	42-		3 Aug 10		Justy of Towns		5 Aug 201
	(Signature of person authorized to sign)		- 1	L	U(Signature of Contracting Officer)		1

NSN 7640-01-152-8070 Provious edition unusable STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.245 The purpose of this modification is to:

- 1. Incorporate by full-text the following government property clauses into this contract:
 - (a) FAR 52.245-1, Government Property, Alternate I
 - (b) FAR 52.245-9, Use and Charges
 - (c) NFS 1852.245-70, Contractor Request for Government Provided Property (July 1997)
 - (d) NFS 1852.245-73, Financial Reporting of NASA Property in the Custody of Contractors (October 2003)
 - (e) NFS 1852.245-76, List of Government-Furnished Property (October 1988)
- 2. As a result of this modification, add contract Attachment V.N. entitled List of Government Property Clauses to provide clauses in full-text, enclosed. Additionally, the following revisions were made:
 - a. Remove clause II.A.29, Use of Government, Facilities and Assets, pg. 43
 - b. Change clause II.A.29, Use of Government, Facilities and Assets, from Section II, p. 43 to Attachment V.N. pg. 151
 - c. Add clause II.A.29, List of Government Property Clauses, pg. 43
 - d. Revise Attachment V.K. to indicate consumable items that will not be property returned to the government.
 - e. A complete conformed copy encompassing all above changes provided herein
- 3. The parties agree that this modification is made at no additional cost to either party.
- 4. All other terms and conditions remain unchanged and in full force and effect.

A 4474 - DA47417	OF SOLICITATION/MODIFIC	ATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF	PAGES
	10	ATION OF CONTRACT		<u> </u>	1	4
. AMENDMENT/	MODIFICATION NO.	S. EFFECTIVE DATE		QUISITION PURCHASE REQ. NO. Schedule	5, PROJECT NO.	н аррисама)
100000	CORE	See Block 16C	1000	OMINISTERED BY (If other than Item 6)	CODE JSC	
Attn: BG 2101 NASA	COPE son Space Center / Judy F. Ross Patkway % 77058-3696	USC	NAS Ati	SA/Johnson Space Cente in: BG / Sharan D. Kcf DI NASA Parkway aston TX 77058-3696	r	
B. NAME AND AD	DRESS OF CONTRACTOR (Mo., street	st, county, State and ZIP Gode)	(x) ^g	A. AMENEMENT OF SOLICITATION NO.		
HAWTHORNE FOCKET F				B. CATEO (SEE ITEM 11)		
			×	OA, MODIFICATION OF CONTRACTICADE IN J 0 9 G A 0 4 B	R NO.	
		Teven my cons		OB. DATED (SEE ITEM 13)		
CODE 3BVI	.8	FACILITY CODE	soza eseñ k	02/26/2009		
		11. THIS ITEM ONLY APPLIES T forth in Item 14. The hour and date spe			axtanded. iz not e:	anded
	13. THIS ITEM ONLY APPLIES TO THIS CHANGE ORDER IS ISSUED ORDER NO. IN ITEM 10A.	PURSUANT TO: (Specify authority)	THE CHAI	MODIFIES THE CONTRACT/ORDER NO. AS NGES SET FORTH IN ITEM 14 ARE MADE ADMINISTRATIVE CHANGES (such as char IY OF FAR 43.103(b).	IN THE CONTRACT	14.
1		NT IS ENTERED INTO PURSUANT T		150 PM 100 PM		
	OTHER (Specify type of modification	n and authority) 232-77. Minitation of th	unds (Fixed-Price Contract) (Mar :	1989)	
	····	is required to sign this document				
E. IMPORTANT:	Contractor is not.			g policitation contract subject matter where t		
The purpo	6 () 1 31 61 -	4)	e fun	ding on this contract via PR(s) 4200351321	firom	and
		the document referenced in them DA or	16 21	nemative changed, remains unchanged and A, MARIE AND TITLE OF CONTRACTING O LICY F. ROSS	OFFICER (Type or pmil)	
158. CONTRAC	and Section Sections with a first street and the section of the se	15C. DATE SIGNE	D 16	Gude J. Rosal	100	i Date Signed 1 Aug. 201
2.0	rature of period , without sed to : "	The second secon		If a familiary or constitute it countries		

NSN 7540-01-152-8070 Previous socialor unusable STANDARD FORM 30 (REV. 10-83) Freadhood by GSA FAR (48 OFR) 53-Z43 The purpose of this modification is to:

- 1. Increase funding on this contract from (b) (4) to
- Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):
 - (a) Of the total price of CLINs 0001 through 0003, the sum of presently available for payment and allotted to this contract.
 - (c)(1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

	MENTAL DESCAPEN NO.	1 EFFECTIVE DATE	4. RE	U.S. TION PURCHASE REQ. NO.	1 2
000021		See Block 16C	1	THE THE PERSON NAMED IN COLUMN	5. PROJECT NO. (# app. cable)
6. ISSUED	BY CODE	JSC STOCK TOC	7.50	MAISTERED BY (No Per Bun itsm 6)	
NASE /	Johnson Space Center	44/-			CODE 13CC
Attn:	ag / Judy F. Ross		MAS	A/Johnson Space Cent	t .
2101	ASA Parkyay		Att	n: BG / Sharen D. Lo:	ton
	n TX 77058-3694		210	1 MASA Furkway	
0000	Lii 17030-3036		Hou	scon TX 77038-3096	
ANUEA	NO AUCHEST OF CONTRACTOR :	county, birth and DIP Count	lo A	AMENDMENT C. SCURTTATION NO.	
		7.7.2.4	(x) **	AMERICANETI CI: SCUELIATION NO.	
FACEX					
ROCKE			98.	DATED (SEE ITEM 11)	
HOHTMA	NE CA 90250			•	
			1774	MODIFICATION OF CUM EACTIONES	M sad
			× M	JOSGA048	IN PROJ.
OCE 3			108	DATED (SEE ITEM 13)	
31	EVL8	FACILITY CODE	02	2/26/2009	
		FI, YES THEM CHLY APPLIES	1 1		
MONTALS IN THE PLAC VICTOR OF IN-	TO DESCRIPTION OF THE RECEPT OF ON THE RECEPT OF ON THE RECEPT OF ON THE RECEPT OF ON THE RECEPT OF ON THE RECEPT OF ON THE RECEPT OF ON THE RECEPT OF THE R	on on the amendment (c) by sound the describer, and arrondment a FERS PRIOR TO THE HOUR AND already submitted, such change ma what to fair common hour and some	ominers FAR DOATE SPE	isted this amendment on each copy of the URE OF YOUR ACKNOWLEDGENEAT	offer a birthird; or (c) By TO BE RECEIVED AT
ee Sch				HETER THE CONTOACTMENTS UP AN	
	12. THIS HEM ONLY APPLIES TO MOI	MICATION OF CONTRACTSION	Pers. It mos	m imm tann mantet temmet teffetfigt taft't biff.	DESCRIBED IN 1751: 14.
	12. THIS FREM ONLY APPLIES TO MOS A. THIS CHANGE CROSS IT ISSUED PU CROSS NO. IN ITEM NO.				
ee Sch	·	RSUANT TO: (Specily ashorty) T	HE CHANGE	S SET FORTH IN ITEM 14 ARE MADE IN	THE CONTRACT
ee Sch	A. THIS CHANGE ORDER IT ISSUED PU GROEN NO. IN ITEM HA. B. THE ABOUT NUMBERED CONTRACT. IMPROPARED OF THE SET FORTH IN C. THE SUPPLEMENTAL AGREEMENTS.	REJUANT YO: (Specily althory) T CROPER IS MODIFIED TO REFLE HTTENS 14, PURSUANT YO THE AL S ENTERED INTO PURSUANT YO	THE CHANGE	S-SET FORTH IN ITEM 14 ARE MADE IN MESTRATIVE CHANGES (SUCH SE ChanG F FAR 43:103(b).	t THE CONTRACT
ee Sch	A. THIS CHANGE ORDER IN ISSUED PU GROEN NO. IN ITEM HA. B. THE ABOUT NUMBERED CONTRACT. ISSUED AND HER SET FORTH IN	REJUANT YO: (Specily althory) T CROPER IS MODIFIED TO REFLE HTTENS 14, PURSUANT YO THE AL S ENTERED INTO PURSUANT YO	THE CHANGE	S-SET FORTH IN ITEM 14 ARE MADE IN MESTRATIVE CHANGES (SUCH SE ChanG F FAR 43:103(b).	I THE CONTRACT
ee Sch	A. THIS CHANGE ORDER IT ISSUED PU GROEN NO. IN ITEM HA. B. THE ABOUT NUMBERED CONTRACT. IMPROPARED OF THE SET FORTH IN C. THE SUPPLEMENTAL AGREEMENTS.	RELIANT YO: (Specily amony) T CRIDER IS MODIFIED TO REFLE HTER IS, PURSUINT TO THE A SENTEREDINTO PURSUANT YO 1. Changes - Fued Pr	THE CHANGE	S-SET FORTH IN ITEM 14 ARE MADE IN MESTRATIVE CHANGES (SUCH SE ChanG F FAR 43:103(b).	I THE CONTRACT

Except in provided Names, at terms and concepts of the occurre 15A. NAME AND THE OF COURT (Type to pure)	ri miesor aid in term. SA or fits	A se harotylare it is god, remains undivinged and in his turce and MALMAME AND TITLE OF CONTRACTURE OF I CAR (Type	cite.
Julie Jie Contracts	CORCE	Judy F. Ross	of grad
163. CO LIR LYON OFFERCR	SO AUT (O	Gudy J Ress	30 aug 2010
NSN P549-01-152-00/0			GRM 30 (REV. 10-83)

Prescribed by GSA FAR (48-CFR) 53-242 The purpose of this modification is to:

- Correct errors to the NASA FAR Supplement property clauses, previously
 incorporated by modification number 20, in order to conform the property clauses to
 comply with NASA Procurement Information Circular (PIC) 07-09 as follows:
 - a. Remove NFS 1852.245-70, Contractor Request for Government Provided Property (July 1997) and replace the clause with NFS 1852.245-70, Contractor Requests for Government-Provided Property (September 2007).
 - b. Remove NFS 1852.245-73, Financial Reporting of NASA Property in the Custody of Contractors (October 2003) and replace the clause with NFS 1852.245-73, Financial Reporting of NASA Property in the Custody of Contractors (September 2007).
 - c. Remove NFS 1852.245-76, List of Government-Furnished Property (October 1988) and replace the clause with NFS 1852.235-76, List of Government Property Furnished Pursuant to FAR 52.245-1 (Deviation) (September 2007).
 - Add NFS 1852.245-74, Identification and Marking of Government Equipment (Deviation) (September 2007).
 - e. Add NFS 1852.245-75, Property Management Changes (Deviation) (September 2007).
- As a result of this modification, correct contract Attachment V.N. entitled List of Government Property Clauses to provide the corrected clauses in full-text.
 - Remove and replace Attachment V.N. with the corrected version attached herein.
- 3. Revise contract Attachment V.K. entitled Government-Supplied Hardware to identify Government supplied property used in the performance of this contract.
 - a. Remove list of Government-Supplied Hardware and add Table V.K.1. entitled Government-Supplied Hardware.
 - b. Add Table V.K.2. entitled Government Purnished Equipment.
- 4. The parties agree that this modification is made at no additional cost to either party.
- 5. All other terms and conditions remain unchanged and in full force and effect.

AMENDMENT OF SOLICITATION/MODIFF	CATION OF CONTRACT	1. CONTRACT ID CODE PAGE: OF PAGES
AMENDMENT OF SOLICITATION MODIFE	WALION OF CONTRACT	1 4
Z AMENEUENTAMODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION PURCHASE REQ. NO. 8. PROJECT NO. (If applicants)
000023	See Block 16C	Not Applicable
S. ISSUED BY CODE		7. ADMINISTERED BY (II office than flom 6) CODE USC
NASA/Johnson Space Center		NASA/Johnson Space Center
Attn: BG / Judy F. Rous		Attn: BG / Sharan D. Lofton
2101 MASA Parkway		2101 NASA Parkway
louston TX 77058-3696		Houston TX 77058-3696
R NAME AND ADDRESS OF CONTRACTOR ING., STA	set, county, State and Z' Code;	(x) 9A. AMENDMENT OF SOLICITATION NO.
the week!		
PACE'S		98. DATED (SEE ITEM 11)
ROCKET RU		
AWTHORNE CA 90250		
		X IGA MODIFICATION OF CONTRACT/ORDER NO.
		108. DATED (SEE (TEM 13)
CODE 3BVLB	FACILITY CODE	02/26/2009
	11. THIS IT EN ONLY APPLIES	S TO AMENDMENTS OF SOLICITATIONS
froms 6 and 15, and refuening sporate little or talegram which includes a reference	I prior to the hour and date specified.) oppies of the amendment; (b) By acknowled to the solicitation and emindment is oppied to the special and emindment in a configuration and the special special prior and the special	in the schicitation of as amended, by one of the following methods: (a) by companing nowinging receipt of this attendment on cach copy of the offer submitted; or (c). By inumbers: FALLURE OF YOUR ACKNOVILEDGEMENT TO BE RECEIVED AT IND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by may be made by felogram or latter, provided each telegram or letter makes halarance.
2. ACCOUNTING AND APPROPRIATION DATA (MA		
Not Applicable		
tj, this item only applies to	MODIFICATION OF CONTRACTS/OF	rders, it modifies the contractiorder no. As described in Item 14.
CHECK ONE A THIS CHANGE ORDER IS ISSUED	FURSUANT TO: (Specify suthorfly)	THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT
ORDER NO. IN ITEM 10A.		
B. THE ABOVE NUMBERED CONTP.		LECT THE ADMINISTRATIVE CHANGES (Each as changes in paying office, E AUTHORITY OF FAR 43.197(b).
B. THE ABOVE NUMBERIES CONTP. Sppropriation date sky.) SET FOR	NT IS ENTERED INTO PURSUANT	TO AUTHORITY OF
B. THE ABOVE NUMBERIES CONTP. Spiringsion date etc.) SET FOR C. THIS SUPPLEMENTAL ATREEME	NT IS ENTERED INTO PURSUANT	
B. THE ABOVE NUMBERIES CONTP. Sppropriation date, sky.) SET FOR	NT is Entered into Pursuant 243-1, Changes - Fixed	TO AUTHORITY OF
B. THE ABOVE NUMBERED CONTP. B. THE ABOVE NUMBERED CONTP. SEPPRISED OF SET FOR C. THIS SUPPLEMENTAL ACREEME X Clause II.A.10: FAA 52.	NT is Entered into Pursuant 243-1, Changes - Fixed	TO AUTHORITY OF

Sae Continuation Pages 2 - 4

Except as provided herein, as torms and condition of the document reference	in the term SA or ICA.	as he softent changed, nich ains unchanged and in for force and a	ffect.
ISA NAME AND TITLE OF SIGNER (Typo or print)		16A HAME AND TITLE OF CONTRACTING OFFICER (Type or	brint)
Tille A Tie. Cestowin Diff	3000	A CONTRACTOR OF THE CONTRACTOR	FILER.
		168. UNITED STATES OF AMERICA	16C. DATE SIGNED
Sur-See-	Huy 10	Guder of Poss	25 Aug 2010
(Signifier of pictor) authorized to don't		STANDARD F Prescribed by	ORM 30 (REV. 10-83) GSA

12.100.000 01.001

FAR (48:CPR) 53.243

- 1. The purpose of this modification is to incorporate the following changes to the contract:
 - a. Revise table II.A.6-1A: Mission Payment Schedule (Pre-ISS Integration) and Table II.A.6-1B: Mission Payment Schedule (Post-ISS Integration) to change Authorization to Proceed(ATP) from L-21 Months to L-24 Months for Missions 4 through Mission 12. ATP for Missions 1-3 remains at L-21 Months.
 - b. Revise the contract statement of work (SOW) to add the following language:

Current Contract

Para 2.0

The Contractor shall perform the tasks necessary to execute all phases of the resupply mission per this SOW. The Standard Resupply Mission may consist of pressurized upmass delivery, unpressurized upmass delivery, cargo disposal or cargo return. The Contractor shall provide the necessary services, test hardware and software, and mission specific elements required to integrate the cargo to the orbital and launch vehicle systems. The Contractor shall perform the required tasks to accomplish the resupply missions to and from the ISS. The Contractor shall provide the required cargo de-integration and return services, where applicable, to deliver cargo back to NASA. The standard external (unpressurized) upmass complement is identified in Attachment V.F.

Para 2.4

The Contractor shall safely integrate NASA cargo into the cargo module and or external carrier. NASA will provide pressurized cargo already packed to the Contractor. NASA will provide unpressurized (external) cargo without flight support equipment to the Contractor.

Para 2.4.1 Paragraph 1

The Contractor shall perform the analysis

Modified Contract

The Contractor shall perform the tasks necessary to execute all phases of the resupply mission per this SOW. The Standard Resupply Mission may consist of pressurized upmass delivery. unpressurized upmass delivery, cargo disposal or cargo return. The Contractor shall provide the necessary services, test hardware and software, and mission specific elements required to integrate the cargo to the orbital and launch vehicle systems. The Contractor shall perform the required tasks to accomplish the resupply missions to and from the ISS. The Contractor shall provide the required eargo de-integration and return services, where applicable, to deliver cargo back to NASA. The standard external (unpressurized) upmass complement is identified in Attachment V.F. After CRS Mission 2, the contractor will provide both the updated standard and extended trush capability, in accordance with DHD CS-1, as part of the STANDARD resupply mission to accommodate large unpressized ORUS and PPOD Deployables.

The Contractor shall safely integrate NASA cargo into the cargo module and or external carrier. NASA will provide pressurized cargo already packed to the Contractor. NASA will provide unpressurized (external) cargo without flight support equipment to the contractor for all missions except Space K Mission 3. For Space X Mission 3, NASA will provide external cargo with all required FSE.

The Contractor shall perform the analysis and integration tasks required to safely integrate

..... ... 960

and integration tasks required to safely integrate unpressurized (external) orbital replacement units (ORUs) for delivery to the ISS.	unpressurized (external) orbital replacement units (ORUs) or Paylonds for delivery to the ISS.
Para 2.4.1 Paragraph 2 NASA will provide the Contractor with the external cargo manifest, including associated environments and models, hardware interfaces, ground processing requirements, interface verification requirements, and operational requirements prior to the VBR.	NASA will provide the Contractor a listing of PSE/FRAME Types needed two works after ATP and final external cargo manifest, including associated environments and models, hardware interfaces, ground processing requirements, interface verification requirements, and operational requirements prior to the VBR.
Para 2.4.1 f) (does not exist)	i) Perform enternal physical integration of the Cargo, FSE/OSE and SpaceX Dragon trank. For ORUs, NASA will deliver the ORU to SpaceX to later than L-k-menths. SpaceX will integrate the ORU and SpaceX, built FSE/OSE into an integrated assembly and complete final integration into the Dragon Trunk. For Poyloads, SpaceX will provide required FSE (Active FRAM) to the Psyload Developer to later than L-12 months. NASA/Payload Developer will integrate the ORU and the SpaceX-built FRAM into an integrated assembly and deliver the integrated assembly to SpaceX no later than L-3 months. SpaceX will complete final integration into the Dragon Trunk.
Para 2.4.3 The Contractor shall provide Flight Support Equipment (FSE), Orbital Support Equipment (OSE), Ground Support Equipment (GSE), and any other hardware needed to process and deliver the cargo to the ISS.	The Contractor shall provide Flight Support Equipment (FSE), Orbital Support Equipment (OSE), Ground Support Equipment (GSE), and any other hardware needed to process and deliver the cargo to the ISS with the careoption of SpaceX Mission 3 where NASA will supply the required external FEEASS.
Para 2.4.3.1 These functions shall be applied to the cargo at the level delivered by NASA (at the ORU or bag level)	These functions shall be applied to the cargo at the level delivered by NASA (at the ORU or bag level) or at the integrated assembly level for unprecessive cargo, if applicable.

2. All of the above contract changes are effective beginning at Mission 4, unless otherwise stated.

- 3. In consideration for the 3-month acceleration of Authority to Proceed and NASA provision of external FSE/OSE for Mission 3, the contractor will provide both the updated standard and extended trunk capability, in accordance with DRDC3-1, as part of the standard resupply mission at no additional cost to the government.
- 4. A full replacement copy of the conformed contract is provided herein.
- 5. All other contract terms and conditions remain unchanged and in full force and effect.

AMERICA	ENT OF SOLICITATION/MODIF	CATION OF CONTRACT		1. CONTRACT ID CODE		OF PAGES
			4	attent attention to the	1 S PROJECT	T NO. (If applicable)
2. AMENDME	NT/MODIFICATION NO.	3. EFFECTIVE DATE		QUISITION/PURCHASE REQ. NO.	S. PRONEU	t 172. la abbicana)
000024	CÓD	See Block 16C		MINISTERED BY (If other than Item 6)	CODE JS	20
Attn: B 2101 NA	hnson Space Center G / Judy F. Ross SA Parkway TX 77058-3696	JBC	NAS Att	A/Johnson Space Center: BG / Sharan D. Lo DI NASA Parkway Diston TX 77058-3696	er er	
B. NAME AND	ADDRESS OF CONTRACTOR (No., atr	eel, county, State and ZIP Code)	(x) ⁹	A AMENDMENT OF SOLICITATION NO.		
SPACEX 1 ROCKET HAWTHORN	r RD NE CA 90250		91	3. DATED (SEE ITEM 11)		
			× N	NA MODIFICATION OF CONTRACTIONS NJ 0 9 G A 0 4 B	ER NO.	
CODE		LEACHETY CODE		B. DATED (SEE ITEM 13)		
CODE 3B	VL8	FACILITY CODE	1 1	02/26/2009		
THE PLACE virtue of this	E REDICINATED EAD THE DECEIPT OF	F OFFERS PRIOR TO THE HOUR A fier aiready submitted, such change :	AND DATE SE may be mede	AILURE OF YOUR ACKNOWLEDGEMEN ECIFIED MAY RESULT IN REJECTION of by telegram or letter, provided each felegi	OF TOUR OFFER.	II by
	TING AND APPROPRIATION DATA (IF		Net Inc	crease:	(b)	(4)
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED ORDER NO. IN ITEM 19A.	PURSUANT TO: (Specify authority)) THE CHAN	IODIFIES THE CONTRACTIONDER NO. A	IN THE CONTRA	ज -
	B. THE ABOVE NUMBERED CONTR appropriation date, etc.) SET FOR C. THIS SUPPLEMENTAL AGREEME			OMHNISTRATIVE CHANGES (such as cha Y OF FAR 43.103(b).	nges in paying offic	
	C. THIS SUFFLEMENT AL AGREEME	MI (9 ENTERED INTO PORSONITI	TO HOTTIO	w-1 v		
	D. OTHER (Specify type of modification	n and authority)				
х	Clause II.A.2, NFS 1852	.232-77, Limitation of	Funds (F	ixed-Price Contract) (Mar	1989)	
E. IMPORTAN	T: Contractor Sis not.	la required to sign this docume	ent and return	0 copies to the l	ssuing office.	partern sassassas
14. DESCRIP	TION OF AMENDMENT/MODIFICATIO	N (Organized by UCF section heading	ngs, including	solicitation/contract subject matter where	feasible.)	
6ee page	2 2.					
Continue			or 40A wa hou	netofece channels versaling unchanned arrive	t in full force and eff	fect.
	vided herein, all terms and conditions of ND TITLE OF SIGNER (Type or print)	the document referenced in item 9A	16A.	retofore changed, remains unchanged and NAME AND TITLE OF CONTRACTING O BY F. ROSS	OFFICER (Type or)	vint)
400 CO. 175	ATABIATTCD20	15C, DATE SIGNI		UNITED STATES OF AMERICA		16C. DATE SIGNED
	CTOR/OFFEROR		5	udy & Pasa		1 Mov 201
	(Signature of person authorized to sign)		10	((arginetore of contracting chicar)		

NSN 7540-01-152-8070 Previous edition unusable STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243 The purpose of this modification is to:

- 1. Increase funding on this contract from (b) (4)
- Accordingly, Clause II.A.2, NPS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):
 - (a) Of the total price of CLINs 0001 through 0003, the sum of presently available for payment and allotted to this contract.
 - (c)(1) It is contemplated that funds presently allotted to this contract will cover work to be performed until (b) (4)
- 3. Additionally, Attachment V.M., pg. 149 has been revised to display the most current list of Task Orders issued to date under CLIN 0003.
- 4. Replacement pages are provided herein.
- 5. All other terms and conditions remain unchanged and in full force and effect.

II.A.2 NFS 1852.232-77 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (MAR 1989)

- (a) Of the total price of CLINs 0001 through 0003, the sum of (b) (4) 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 as required by the payment schedule in Clause II.A.6, until the total price of said CLINs is allotted.
- (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 Section II, Clause 52.212-4(l), Termination for the Government's Convenience, of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1. 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 contract Section II, Clause 52.212-4(l) notwithstanding.
- (c) Reserved.
 - (1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
 - (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 sixty (60) days the work will reach a point at which, if the contract is terminated pursuant to contract Section II, Clause 52.212-4(l) of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1.
 - (3) Reserved.
 - (i) The notice shall state the estimate when the point referred to in paragraph I(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, sixty (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 contract Section II, Clause 52.212-4(1).
- (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(s) (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 Termination for Cause 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 contract Section II, Clause 52.212-4(l).

(End of clause)

Attachment V.M. SPECIAL TASK ASSIGNMENTS AND STUDIES SUB-CLIN SCHEDULE FOR CLIN 003

This Sub-CLIN Schedule provides contract details for task orders issued under CLIN 0003.

SUB- CLIN	TASK ORDER	REVISION	DATE	DESCRIPTION	PRICE»
0003AA	2	BASIC	4/20/2009		
0003AB	3	BASIC	12/24/2009		
0003AB	3	A	1/13/2010	(D)	4)
0003AB	3	В	4/07/2010		
0003AB	3	С	6/29/2010		
0003AC	4	BASIC	1/25/2010		
0003AC	4	A	6/02/2010		
0003AC	6	BASIC	09/27/2010		
	_				
		<u> </u>			
				тот	(b) (4)

2. AREIGNMENTANCORPICATION NO. 2. SEPTICITY COST 2. COOR JUCY 3. SERVICE BY COOR JUCY 4. SERVICE BY COOR JUCY 4. SERVICE BY COOR JUCY 4. SERVICE BY COOR JUCY 4. SERVICE BY COOR JUCY 3. SERVICE BY COOR JUCY 4. SERVICE BY COOR JUCY 4. SERVICE BY COOR JUCY 4. SERVICE BY COOR JUCY 4. SERVICE BY COOR JUCY COOR JUCY 4. SERVICE BY COOR JUCY COO	AMENDMENT OF SOLICITATION/MODIFIC	ATION OF CONTRACT		1. CONTRACT ID CODE	PAGE 1	OF PAGES
See Block 16C \$20365964 \$7. ADMINISTRED BY (Polar dain fries 6) COS6 \$15C 2 AMENDMENTANODIFICATION NO.	T3 EFFECTIVE DATE	4. REC	UISITION/PURCHASE REQ. NO.		FO. (If applicable)	
MASA/Johnson Space Cotte MASA/Johnson Space Cotte MASA/Johnson Space Cotte Mash Johnson Space Co			4200	365964		
NASA/Johnson Space Center Attn: 86 / July F. Ross 2101 NASA Parkway Nouston TX 77058-3696 Nouston TX 77058-369			7. ADI	AINISTERED BY (If other than Item 6)	CODE JSC	<u> </u>
SPACEX 1. ROCKET RD 1-AWTHORNE CA 90250 TACALITYCODE	NASA/Johnson Space Center Attn: BG / Judy F. Ross	030	Att: 210	n: BG / Sharan D. Lofto: 1 NASA Parkway	<u> </u>	per and a second
DODE 3BYL8 PACELTY CODE 15. NOSIENCATION OF CONTRACTORDER NO. NINJO 96A6 19.	8. NAME AND ADDRESS OF CONTRACTOR (No., street	t, county, State and ZIP Code)	(x) 9A	AMENDMENT OF SOLICITATION NO.		
NN./O SCAOL 4B ROBULTY CODE	SPACEX 1 ROCKET RD HAWTHORNE CA 90250		98.	DATEO (SEE ITEM 11)		
15. THE STEW ONLY APPLES TO MODIFICATION OF CONTRACTORDERS, If MODIFIES THE CONTRACTORDER NO. AS DESCRIBED IN THE SUPPLES TO AMENDER NOT THE AUTHORITY OF . 15. THE STEW ONLY APPLES TO MODIFICATION OF CONTRACTORDERS IS MODIFIED TO REFLECT THE AUMINISTRATIVE CHARGES (such as changed in paying office, specificial role, significant costs			X NI	IJ09GA04B	o.	
11. THIS TIEM ONLY APPLIES TO AMEXIMIENTS OF SOLICITATIONS The above numbered solicitation is amended as set forth in liter 14. The hour and date specified for receipt of Others Colleges much acknowledge receipt of this amendment to the but and date specified for solicitation or as amended, by one of the informing methods (e) by completing Items 8 and 15, and relativity Copies of this amendment, (b) the but are distanced, by one of the informing methods (e) by completing Items 8 and 15, and relativity Copies of the stream-denth (b) the stream-denth problem. A Copies of the stream-denth (b) one of the information of the stream-denth problem. A Copies of the stream-denth (b) of the specified of the stream-denth (b) of the security of this amendment con each copy of the offer subcritication of the specified on the stream-denth (b) of the specified on the stream-denth (b) of the specified on the stream-denth (b) of the specified on the stream-denth (b) of the specified on the stream-denth (b) of the specified on the stream-denth (b) of the specified on the stream-denth (b) of the specified on the			100	B. DATED (SEE ITEM 13)		
The above numbered solicitation is immerciated as set both in libra 14. The hour and date specified for receipt of Office. Ciffers must schiomology provided of this amounthment price to the hour and date specified in the administration or a semented by one of the followings provided of this amounthment provided in the completing copies of the amounthment provided in the amounthment on each copy of the offer substitution of copies of the amounthment of the provided in the amounthment on each copy of the offer substitution of the amounthment on each copy of the offer substitution of the amounthment on each copy of the offer substitution of the amounthment on each copy of the offer substitution of the amounthment on each copy of the offer substitution of the amounthment on each copy of the offer substitution of the amounthment on each copy of the offer substitution of the amounthment on each copy of the offer substitution of the amounthment on each copy of the offer substitution of the amounthment on each copy of the offer substitution of the substitution of the copy of the operation of the operation of the operation of the copy of the substitution of the copy of the operation o	CODE 3BVL8		1 1			100 25 St 9535
Common and all non-industriage receipt of this amendment price to this hour and data specified in the solicitation or as amended, by one of this following methods (a) by completing learners and 15, and refurning in an elementary and the second of the senders of		11. THIS ITEM ONLY APPLIES	TO AMENON	ENTS OF SOLICITATIONS		
Clause II.A.2, NFS 1852.232-77, Limitation of Funds (Fixed-Price Contract) (Mar 1983) E. BAPORTANT: Contractor © Is not. Sign this document and return O copies to the Issuing office. 14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feesable.) See page 2. Continued. 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) 16A. NAME AND TITLE OF SIGNER (Type or print) Judy F. Ross 15B. CONTRACTOR/OFFEROR 15C. DATE SIGNED 16B. UNITED STATES OF AMERICA 16C. DATE SIGNED 16C. DATE SIGNED	CHECK ONE A. THIS CHANGE ORDER IS ISSUED ORDER NO. IN ITEM 10A. B. THE ABOVE NUMBERED CONTRA ROPPOPULATION data, ptc.) SET FORTI	PURSUANT TO: (Specify authority) CT/ORDER IS MODIFIED TO REFL H IN ITEM 14, PURSUANT TO THE	THE CHANG	SES SET FORTH IN ITEM 14 ARE MADE IN THE MINISTRATIVE CHANGES (such as changes OF FAR 43.103(b).	HE CONTRACT	r
Clause II.A.2, NFS 1852.232-77, Limitation of Funds (Fixed-Price Contract) (Mar 1983) E. BAPORTANT: Contractor © Is not. Sign this document and return O copies to the Issuing office. 14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feesable.) See page 2. Continued. 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) 16A. NAME AND TITLE OF SIGNER (Type or print) Judy F. Ross 15B. CONTRACTOR/OFFEROR 15C. DATE SIGNED 16B. UNITED STATES OF AMERICA 16C. DATE SIGNED 16C. DATE SIGNED	D. OTHER (Specify lyne of modification	and authority)				
E. BAPORTANT: Contractor Ells not. Street to sign this document and return 0 copies to the hazing office. 14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solidation/contract subject motion where feesible.) See page 2. Contained. 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) 15B. CONTRACTOR/OFFEROR 15C. DATE SIGNED 15C. DATE SIGNED 15C. DATE SIGNED 15C. DATE SIGNED 15C. DATE SIGNED 15C. DATE SIGNED 15C. DATE SIGNED 15C. DATE SIGNED 15C. DATE SIGNED 15C. DATE SIGNED 15C. DATE SIGNED 15C. DATE SIGNED 15C. DATE SIGNED			Funds (Fi	xed-Price Contract) (Mar 1985	1} .	
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feesable.) See page 2. Continued. Except as provided herein, all terms and conditions of the document referenced in item 9A or 10A, as heretofore changed, ramains unchanged and in full force and effect. 15A NAME AND TITLE OF SIGNER (Type or print) 15B. CONTRACTOR/OFFEROR 15C. DATE SIGNED 15B. UNITED STATES OF AMERICA 16C. DATE SIGNED 16C. DATE SIGNED						Visit
Except se 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) 16B. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) 15B. CONTRACTOR/OFFEROR 15C. DATE SIGNED 16B. UNITED STATES OF AMERICA 16C. DATE SIGNED 19B. TOV 201		(Organized by UCF section heading	ga, including a	iolicitation/contract subject matter where feesib	lo.}	
15A. NAME AND TITLE OF SIGNER (Type or print) 16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Judy F. Ross 15B. CONTRACTOR/OFFEROR 15C. DATE SIGNED 15B. UNITED STATES OF AMERICA 16C. DATE SIGNED 19 70 V 201	Continued.					
158. CONTRACTOR/OFFEROR 15C. DATE SIGNED 168. UNITED STATES OF AMERICA 16C. DATE SIGNED 29 700 201		he document referenced in item 9A				
Judy J. Ross 39 nov 201			Jud	ly F. Ross		
		15C, DATE SIGNI	ED 168.1	Ludy J. Ross	i i	19 MOV 2010

STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243 The purpose of this modification is to:

- 1. Increase funding on this contract from (b) (4)
- Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):
 - (a) Of the total price of CLINs 0001 through 0003, the sum of presently available for payment and allotted to this contract.
 - (c)(1) It is contemplated that funds presently allotted to this contract will cover work to be performed until (b) (4)
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

II.A.2 NFS 1852.232-77 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (MAR 1989)

- (a) Of the total price of CLINs 0001 through 0003, the sum of 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 as required by the payment schedule in Clause II.A.6, until the total price of said CLINs is allotted.
- (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 Section II, Clause 52.212-4(l), Termination for the Government's Convenience, of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1. 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 contract Section II, Clause 52.212-4(l) notwithstanding.
- (c) Reserved.
 - (1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
 - (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 sixty (60) days the work will reach a point at which, if the contract is terminated pursuant to contract Section II, Clause 52.212-4(1) of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(1) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1.
 - (3) Reserved.
 - (i) The notice shall state the estimate when the point referred to in paragraph I(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, sixty (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 contract Section II, Clause 52.212-4(1).
- 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(s) (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 Termination for Cause 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 contract Section II, Clause 52.212-4(l).

(End of clause)

	TOP BOUCHATION/MODIFIC	CATION OF CONTRACT		1. CONTRACT ID CODE	PAGE	OF PAGES
2 AMENDMENT	MODIFICATION NO.	S. EFFECTIVE DATE			1 1	23
	MULHICATION NO.		4.R	equisition/purchase req. no.	5. PROJECT	NO. (Il ecplicable)
000026 6. ISSUED BY	CODE	See Block 16C				, , , , , , , , , , , , , , , , , , ,
		JSC		OMINISTERED BY (If other than them 6)	CODE JS	3
	son Space Center			SA/Johnson Space Cente		
	/ Eric J. Schell			tn: BG / Sharan D. Los	fton	
2101 NASA	X 77058-3696			01 NASA Parkway		
nouscon 1	0605-90011 V		но	uston TX 77058-3696		
8. NAME AND AD	DRESS OF CONTRACTOR (No., atres	, county, State and ZIP Code)	100	IA. AMENDMENT OF BOLICITATION NO.		
			127			
PACEX						
l rocket i Lawthorne	·- <u>-</u>			B. DAYED (SEE ITEM 11)		
WHI THOUSE	On 30230					
			×	GA. MODIFICATION OF CONTRACT/ORD	ER NO.	
				INJ09GA04B		
				OB. DATED (SEE ITEM 13)		
ODE 3DEF	Q	FACILITY CODE				
The above rumi	bered solicitation is amended as set for nowledge receipt of this amendment pi	for to the hour and date specified it	TO AMENE	02/26/2009 MENTS OF SOLICITATIONS PECAPL OF OTHERS HON OF ASS AMENDED, by one of the following	extended, [] is not methods: (a) By con-	polision
The above rumit Offers must ack items 8 and 15, separate tertor o THE PLACE DE virtus of this ame	Sered solicitation is amended as sel for nowledge receipt of this amendment property of reference in the receipt of the sered reference in the receipt of th	11. THIS TEEM GALLY APPLIES IT IN SERN 14. The hour and date is for to the hour and date specified is for to the hour and date specified in (as of the amendment; (b) By sckin by the solicitation and amendment of FFERS PROR TO THE HOUR AN attendy such change in	TO AMENE pecified for the soliciti windging in umbers. F O DATE SI	02/26/2009 MENTE OF SOLICITATIONS	methods: (a) By con e offer submitted; or TO SE RECEIVED	pleting (c) By AT
The above rumi Offers must ack items 8 and 15, separals letter o THE PLACE DE virtus of this arm to the solicitation	bered solicitation is amended as set for nowledge receipt of this amendment pa and returning cop r telegram which includes a reference skidniATED FOR THE RECEIPT OF O producent you dealer to change an order a and this amendment, and is received	11. THIS TIEM GALY APPLIES IT IN IN SET 14. The hour and date a, int in Set 14. The hour and date a, int in Set 14. The hour and date specified it is so of the amendment; (b) By action to the solicitation and amendment of FERS PRIOR TO THE HOUR AN athready submitted, such change m prior to the opening hour and date.	TO AMENE pecified for the soliciti windging in umbers. F O DATE SI	02/26/2009 MEANTS OF SOLICITATIONS receipt of Offers ition or as amended, by one of the following people of this amendment on each copy of the ARLINE OF YOUR ACKNOWLEDGEMENT.	methods: (a) By con e offer submitted; or TO SE RECEIVED	pleting (c) By AT
The above rumi Offers must ack items 8 and 15, separals letter o THE PLACE DE virtus of this arm to the solicitation	bered solicitation is amended as set for nowledge receipt of this amendment part returning opport selegram which includes a reference in steam to the property of the RECERT OF Opportunity of dealth to change an official and this amendment, and is received AND APPROPRIATION DATA (Frequence)	11. THIS TIEM GALY APPLIES IT IN IN SET 14. The hour and date a, int in Set 14. The hour and date a, int in Set 14. The hour and date specified it is so of the amendment; (b) By action to the solicitation and amendment of FERS PRIOR TO THE HOUR AN athready submitted, such change m prior to the opening hour and date.	TO AMENE pecified for the soliciti windging in umbers. F O DATE SI	02/26/2009 MEANTS OF SOLICITATIONS receipt of Offers ition or as amended, by one of the following people of this amendment on each copy of the ARLINE OF YOUR ACKNOWLEDGEMENT.	methods: (a) By con e offer submitted; or TO SE RECEIVED	pleting (c) By AT
The above rumino Offers must ack lierus 8 and 15, separate tetter o THE PLACE DE virtus of this arm to the solicitudier 2. ACCOUNTING	bered solicitation is amended as set for nowledge receipt of this amendment pand returning opport setegram which includes a reference in SIGNATED FOR THE RECEIPT OF Opportunity out dealing to change an order a and this amendment, and is received AND APPROPRIATION DATA (Frequis).	11. THIS TEEM CALLY APPLIES IT IN SERN 14. The hour and delte a for so the hour end dele specified in less of the amendment; (b) By solin to the solicitation and amendment of IFFERS PRIOR TO THE HOUR AN afready submitted, such change in prior to the opening hour and deta- ared)	TO AMENE pecified for the solicits whedging n umbers. F O DATE Si sy be made specified.	02/26/2009 MEANTS OF SOLICITATIONS receipt of Offers ition or as amended, by one of the following people of this amendment on each copy of the ARLINE OF YOUR ACKNOWLEDGEMENT.	methods: (a) By con e offer submitted; or TO BE RECEIVED F YOUR OFFER. If In or letter makes re	pleting (c) By AT Py Werence
The above ruming of the state of the second	bered solicitation is amended as set for nowledge receipt of this amendment part returning cop or telegram which includes a reference is skinner for the RECEPT OF Conditional you dealer to change an other sand this amendment, and is received AND APPROPRIATION DATA (If required to the property of the part of the smendment, and is received and the smendment, and is received and appearance of the property of the part of the p	11. THIS TIEM CALLY APPLIES IT IN SERT 14. The hour and date appointed it is at the hour and date specified it is at the amendment; (b) By action to the solicitation and amendment of IFFERS PROOR TO THE HOUR AN ARMY submitted, such change in prior to the opening hour and date ared) DIFICATION OF CONTRACTISION	TO AMERIC pecified for the solicits wandging in umbers. Fr 0 DATE Silving be made upacified.	02/26/2009 MEHTS OF SOLICITATIONS PROCEDIOF Offers In the or as amended, by one of the following posite of this amendment on each capy of the ARLINE OF YOUR ACKNOWLEDGEMENT RECIFIED MAY RESULT IN REJECTION O by telegram or letter, provided each Lebegre	methods: (a) By con- e offer submitted; or 100 86 RECEIVED. F YOUR OFFER. 8: m or letter melies re- DESCRIBED IN ITE	pleting (c) By AT by Verance
The above ruming of the same o	bered solicitation is amended as set for nowledge receipt of this amendment pand returning cop or telegram which includes a reference is siskinal ED FOR THE RECEIPT OF OF OPPORTUNITY desired to change an offer a and this amendment, and is received AND APPROPRIATION DATA (If required to the control of the	11. THIS TIEM CALLY APPLIES IT IN SERN 14. The hour and delis a It in Sern 14. The hour and delis a for so the hour end dele specified in the solicitation and amendment o the solicitation and amendment o FFERS PROCE TO THE HOUR AN already submitted, such change in prior to the opening hour and dete- ared) INSUANT TO: (Specify authority) INSUANT TO: (Specify authority)	TO AMERIC Decided for the solicits wheeling in umbers. FO DAYE Si By be made upacified.	02/26/2009 MEHTS OF SOLICITATIONS PROCEDIT OF BYSICAL STATE OF SOLICITATIONS PROCEDIT OF BYSICAL STATE OF SOLICITATIONS PROCEDIT OF BYSICAL STATE OF SOLICITATION OF SOLIC	methods: (a) By con- e offer submitted; or e offer submitted; or ITO BE RECEIVED. ITO BE RE	pleting (c) By AT by Verance
The above ruming of the same action of the place De virtue of this arm to the solicitudes of the solicitudes	bered solicitation is amended as set for nowledge receipt of this amendment pand returning cop or telegram which includes a reference is siskinal ED FOR THE RECEIPT OF OF OPPORTUNITY desired to change an offer a and this amendment, and is received AND APPROPRIATION DATA (If required to the control of the	11. THIS TIEM CHALY APPLIES IT IN SERN 14. The hour and delte a It in sern 14. The hour and delte a It is sern 14. The hour and delte a It is sern 14. The hour and delte a It is ser of the amendment; (b) By school to the solicitation and amendment of IFFERS PRIOR TO THE HOUR AN already submitted, such change in prior to the opening hour and deta ared) IRSUANT TO: (Specify authority) IRSUANT TO: (Specify authority) IRSUANT TO: (Specify authority) IRSUANT TO: (Specify authority) IRSUANT TO: (Specify authority) IRSUANT TO: (Specify authority) IRSUANT TO: (Specify authority) IRSUANT TO: (Specify authority) IRSUANT TO: (Specify authority)	TO AMERIC Decided for she soldist wheeling in umbers. For DATE Si sy be made packed. THE CHAIN CT THE AL UTHORIT	02/26/2009 MEHTS OF SOLICITATIONS PROCEDIO OF OTHER THE CONTRACT OF SOLICITATIONS PROCEDIO OF OTHER PROCEDIO OF OTHER PROCEDIO OF OTHER PROCEDIO OTHER	methods: (a) By con- e offer submitted; or e offer submitted; or ITO BE RECEIVED. ITO BE RE	pleting (c) By AT by Verance
The above rumino Offers must ack lierus & and 15, separate tetter of THE PLACE DE virtus of this arm to the solicitation 2. ACCOUNTING GE Schedu	bered solicitation is amended as set for nowledge receipt of this amendment pand returning cop or telegram which includes a reference is sistematically or the received produced you dealer to change an order and this amendment, and is received AND APPROPRIATION DATA (If required to the received AND APPROPRIATION DATA (If required	11. THIS TIEM GMLY APPLIES IT IN SERN 14. The hour and delie a for so the hour end dele specified if les of the amendment; (b) By sedim to the solicitation and amendment of IFFERS PRIOR TO THE HOUR AN already submitted, such change in prior to the opening hour and dete- ared) IRSUANT TO: (Specify authority) IRSUANT TO: (Specify authority) I/GROER IS MODIFIED TO REFLE IN TEM 14, PURSUANT TO THE I IS ENTEREDTINTO PURSUANT TO	TO AMERIC Decided for the solicity wheeling in umbers. For DAYE 8i my be made up bedded. THE CHAIN COT THE ALUTHORY Of AUTHORY	02/26/2009 MEHTS OF SOLICITATIONS PROCEDIO OFFICE PROCEDIO OFFICE PROCEDIO OFFICE PROCEDIO OFFICE PROCEDIO OFFICE PROCEDIO OFFICE MAY RESULT IN REJECTION O BY Inlegram or Netter, provided earth Lebegra MOBIFIES THE CONTRACTIONDER NO. AS GES SET PORTH IN ITEM 14 ARE MADE ONINISTRATIVE CHANGES (such as chang Y OF FAR 43,103(b).	methods: (a) By con- e offer submitted; or e offer submitted; or e offer submitted; or F YOUR OFFER. If m or letter melies re OSSCRIBED IN THE N THE CONTRACT pcs in paying office,	pleting (c) By AT by Verance
The above ruming of the service of t	bered solicitation is amended as set for nowledge receipt of this amendment pand returning cop or telegram which includes a reference is sistematically or the received produced you dealer to change an order and this amendment, and is received AND APPROPRIATION DATA (If required to the received AND APPROPRIATION DATA (If required	11. THE TIEM GALLY APPLIES IT IN SERT 14. The hour and delet a for to the hour and delet specified in less of the amendment; (b) By solute to the solicitation and amendment of FFERS PRIOR TO THE HOUR AN already submitted, such change in prior to the opening hour and date ared) POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION POFICAT	TO AMERIC Decided for the solicity wheeling in umbers. For DAYE 8i my be made up bedded. THE CHAIN COT THE ALUTHORY Of AUTHORY	02/26/2009 MEHTS OF SOLICITATIONS PROCEDIO OF OTHER THE CONTRACT OF SOLICITATIONS PROCEDIO OF OTHER PROCEDIO OF OTHER PROCEDIO OF OTHER PROCEDIO OTHER	methods: (a) By con- e offer submitted; or e offer submitted; or e offer submitted; or F YOUR OFFER. If m or letter melies re OSSCRIBED IN THE N THE CONTRACT pcs in paying office,	pleting (c) By AT by Verance
The above ruming of the service of t	pered solicitation is amended as sel for nowledge receipt of this amendment providing coperate the program which includes a reference stigmant por telegram which includes a reference stigmant por the RECERT OF COPPRINT OF THE RECEIPT OF COPPRINT OF THE RECEIPT OF COPPRINT OF THE RECEIPT OF THE RECEIPT OF THE RECEIPT OF THE RECEIPT OF THE RECEIPT OF THE PROPERTY OF THE PROPERTY OF THE STORY OF THE ABOVE NUMBERED CONTRACT appropriation data, etc.) SET FORTH IN THE SUPPLEMENTAL AGREEMENT THE SUPPLEMENT TH	11. THE TIEM GALLY APPLIES IT IN SERT 14. The hour and delet a for to the hour and delet specified in less of the amendment; (b) By solute to the solicitation and amendment of FFERS PRIOR TO THE HOUR AN already submitted, such change in prior to the opening hour and date ared) POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION OF CONTRACTSION POFICATION POFICAT	TO AMENE TO AMENE The solidate the solidate weeding in umbers. FO DAYE St py be made spection. THE CHAIN CT THE AI O AUTHOR O AUTHOR O De	02/26/2009 DEENTS OF SOLICITATIONS PROCEDIT OF CONTROL CITIES OF SOLICITATIONS CITIES OF SOLICITATIONS CITIES OF SOLICITATIONS CITIES OF YOUR ACKNOWLEDGEMENT SECTION O BY LONG THE GONTRACTION OF LANGE THE GONTRACTI	methods: (a) By con- e offer submitted; or 10 BE RECEIVED. F YOUR OFFER, If m or letter melies re DESCRIBED IN THE N THE CONTRACT JOSS in paying office, exnate II	pleting (c) By AT by Verance

Except as provided transit, all terms and conditions of the do	cunters referenced in Item SA or 10A,	as herelofore changed, remains unchanged as	nd in full force and of	fect.
15A. NAME AND TITLE OF SIGNER (Type or print)	~	16A, NAME AND TITLE OF CONTRACTING	OFFICER (Type or	print)
GWYNE E. Shotwell,	President	Septe Ochest Danell	T. John	1904
SUMMES - NO CA	190. DATE SIGNED	16L UNITED STATES OF AMERICA	11	12 23 10
(Signature of person authoritistical sign)	1-100,000	(Signature of Contracting Officer)		M 30 (REV. 10-83)
Previous addion amusable			Prescribed by GS	iA .

- A. The purpose of this modification is to incorporate the following changes into this contract:
- Revise contract clause II.A.6, entitled Resupply Mission Payments, Milestone
 Events and Completion Criteria, to reflect an increase in the not-to-exceed
 percentage for total mission milestone payments prior to ISS Integration from 30%
 to 50%.
- 2. Change paragraph 6.4 (A) to read, "Mission milestone payments made for resupply missions prior to completion of ISS integration shall not exceed 50% of the cost of that mission."
- 3. The parties agree that Space X will provide the following changes at no cost to NASA in return for ISS Integration cap increase from 30% to 50%:
 - SpaceX to build and maintain in inventory one SAPA FRAM to be available for Launch on Need (LON) ORUs – available for CRS 4
 - SpaceX Approval of SSP 50808 IRD Rev B, ISS Interface Requirements Document
 - SpaceX agreement to provide late stow and early destow of NASA Cold Bags - Details documented in Vehicle IDD
 - SpaceX to increase frequency of updates to DRD C2-2, Integrated Schedules to ensure better communication on flight specific schedules related to cargo builds or integration. DRD C2-2, Integrated Schedules to be delivered every 2 weeks.
 - SpaceX approval of updates to DRD C4-2, Initial Mission Resource Allocation Document (MRAD #1) and DRD C6-1, Delta Mission Resources Allocation Document MRAD #2.
 - *Primary updates include: earlier manifest delivery (from NASA), additional delta MRAD (~L-1 mo), items moved to SOW, mass properties included with CAD deliveries, deletion of unnecessary or redundant deliverables.

SpaceX to continue providing financial data through CRS 2

(b) (4)

 Agreement for research and development for alternate IPCU that is permanently installed on ISS at no cost to NASA

- Feasibility study of CUCU-CCP connection without drag-through.
 SpaceX to build ground test cable and complete cable testing and other analysis based on CUCU-CCP CR
- 4. Revise Attachment V.L. entitled Applicable and Reference Documents from SSP-50808 Revision A to SSP-50808 Revision B.
- 5. Add a separate Contract Line Item (CLIN), entitled 2.1.4. CLIN 0004 Secondary Payloads (PPOD/Cuberrats) on pg. 11 of the conformed contract.
 - a). The base prices for these contract line items are based upon the contractor's fully evaluated and accepted proposal dated March 5, 2010 that were incorporated into the contract under Task Order 003. The additional CY prices for these contract line items were forecasted based on a standard (b) (4) inflation rate. The first P-Pods Payloads with P-Pod Systems Harness were ordered under Task Order 003, Revision B and the first CU-SAT Payload was ordered under Task Order 003, Revision C. b). Future orders for Deployable Payloads will be issued as a separate task order under CLIN 0004; and in accordance with the contract task ordering procedures.

6. Revise the contract statement of work (SOW) to add the following language:

Current Contract	Modified Contract
1.0 Scope - The Contractor shall perform all tasks necessary to ensure safe and reliable cargo integration and transportation to and from the ISS.	1.0 Scope - The Contractor shall perform all tasks necessary to ensure safe and reliable cargo integration and transportation to and from the ISS. NASA will provide Thermal Vacuum testing and Bake-out for the first FRAM built by SpaceX using NASA engineering resources and MSFC facilities. Additionally NASA will provide on an as available basis, FRAM Ground Support Equipment to support first flight FRAM manufacture and testing.
2.0 Standard Resupply Mission	2.0 Standard Resupply Mission
The Contractor shall perform the tasks necessary to execute all phases of the resupply mission per this SOW. The Standard Resupply Mission may consist of pressurized upmass delivery, unpressurized upmass delivery, cargo disposal or cargo return. The Contractor shall provide the	The Contractor shall perform the tasks necessary to execute all phases of the resupply mission per this SOW. The Standard Resupply Mission may consist of pressurized upmass delivery, unpressurized upmass delivery, secondary deployable payloads, carso disposal or cargo return.

necessary services, test hardware and software, and mission specific elements required to integrate the cargo to the orbital and launch vehicle systems. The Contractor shall perform the required tasks to accomplish the resupply missions to and from the ISS. The Contractor shall provide the required cargo de-integration and return services, where applicable, to deliver cargo back to NASA. The standard external (unpressurized) upmass complement is identified in Attachment V.F. After CRS Mission 2, the contractor will provide both the updated standard and extended trunk capability, in accordance with DRD C3-1, as part of the STANDARD resupply mission to accommodate large unpressurized ORUs and PPOD Deployables.

The Government will maintain official property records in connection with Government property under this contract. The Government will deliver to the Contractor, for use in connection with and under the terms of this contract, the Government-supplied property described in Attachment V.K, together with such related data and information as the Contractor may request and as may be reasonably required for the intended use of the property (herein referred to as "Government-Supplied Property").

The Contractor shall provide the necessary services, test hardware and software, and mission specific elements required to integrate the cargo to the orbital and launch vehicle systems. The Contractor shall perform the required tasks to accomplish the resupply missions to and from the ISS. The Contractor shall provide the required cargo de-integration and return services, where applicable, to deliver cargo back to NASA. The standard external (unpressurized) upmass complement is identified in Attachment V.F.

After CRS Mission 2, the contractor will provide both the updated standard and extended trunk capability, in accordance with DRD C3-1, as part of the STANDARD resupply mission to accommodate large unpressurized ORUs and PPOD Deployables.

After CRS Mission 4, the contractor will provide a Launch of Need capability for the launch of a Small Adapter Plate Assembly (SAPA) mounted Orbital Replacement Unit (ORU). To accommodate this provision, SpaceX will maintain in inventory one (1) SAPA tobe used to launch a NASA defined ORU. LON manifest need dates, NASA deliverables and SpaceX analytical cycle is defined n the MIOMP (DRD C1-7).

The Government will maintain official property records in connection with Government property under this contract. The Government will deliver to the Contractor, for use in connection with and under the terms of this contract, the Government-supplied property described in Attachment V.K., together with such related data and information as the Contractor may request and as may be reasonably required for the intended use of the property (herein referred to as "Government-Supplied Property").

2.3.3.4.1. Flight Crew and Ground Support Personnel Training

The Contractor shall provide a mission specific crew training plan as outlined in the Initial MRAD (DRD C4-2) at L-10 months. The Contractor shall provide a minimum of two flight crew and ground personnel training sessions at the Contractor facility. The Contractor shall propose acceptable dates for the training briefings in accordance with DRD C4-2.

The Contractor shall provide the following module systems training functions:

- a) Systems familiarization briefings in the classroom covering nominal and offnominal systems operations and maintenance.
- b) Hands-on instruction in orbital vehicle systems operations and maintenance using mockups or actual vehicles as appropriate to the training task. This hands-on training shall include orbital vehicle systems up to ISS interfaces, as well as, orbital vehicle interactions with ISS systems (e.g. hatch, vestibule operations, etc.)
- c) Instructional training documentation and material as appropriate to the training task.
- d) Coordination of integrated training plans and schedules with NASA to avoid schedule conflicts and assure proper lesson content, consistent with the Flight Products DRD C5-1.
- Updates to orbital vehicle data and Contractor-provided training hardware as required to maintain a mission specific training environment for each of the training aids and mockups.

2.3.3.4.1. Flight Crew and Ground Support Personnel Training

The Contractor shall provide a mission specific crew training plan as outlined in the Mission Training Plans (DRD C4-5) at ATP (L-34 months). The Contractor shall provide a minimum of two flight crew and ground personnel training sessions at the Contractor facility. The Contractor shall propose acceptable dates for the training briefings in accordance with DRD C4-5. The Contractor shall provide the following module systems training functions:

- a) Systems familiarization briefings in the classroom covering nominal and offnominal systems operations and maintenance. Mission specific training including unpressurized cargo as required in accordance with DRD C4-5.
- b) Hands-on instruction in orbital vehicle systems operations and maintenance using mockups or actual vehicles as appropriate to the training task. This hands-on training shall include orbital vehicle systems up to ISS interfaces, as well as, orbital vehicle interactions with ISS systems (e.g. hatch, vestibule operations, etc.)
- c) Instructional training documentation and material as appropriate to the training task.
- d) Coordination of integrated training plans and schedules with NASA to avoid schedule conflicts and assure proper lesson content, consistent with the Flight Products DRD C5-1.
- e) Updates to orbital vehicle data and Contractor-provided training hardware as required to maintain a mission specific training environment for each of the training aids and mockups.

2.3.3.4.2. Mission Simulation Support The Contractor shall participate in two Joint Multi-Segment Simulation Training

2 3.3.4.2. Mission Simulation Support The Contractor shall participate in two Joint Multi-Segment Simulation Training

(JMSTs). NASA will conduct the JMSTs from the NASA-Johnson Space Center (JSC) Mission Control Center (MCC) and the ISS Management Center (IMC) to perform integrated mission training for each mission. Each of these simulations may last up to 48 hours.

(JMSTs). NASA will conduct the JMSTs from the NASA-Johnson Space Center (JSC) Mission Control Center (MCC) and the ISS Management Center (IMC) to perform integrated mission training for each mission. Each of these simulations may last up to 48 hours. NASA/SpaceX Concurrence on the NASA built John Integrated Sim (JIS) plan (NASA/SpaceX Mission Ops) is required No Later than L-6 months.

2.4.1. Unpressurized Cargo Analysis and Integration

The Contractor shall perform the analysis and integration tasks required to safely integrate unpressurized (external) orbital replacement units (ORUs) or Payloads for delivery to the ISS. These tasks include cargo integration and analysis, and on-orbit operations analysis.

The Contractor shall submit a Vehicle IDD (DRD C3-1) which will provide the launch and orbital vehicle environments. NASA will use this data to assess the compatibility of NASA cargo with the launch vehicle. NASA will provide the Contractor a listing of FSE/FRAM Types needed two weeks after ATP and final external cargo manifest, including associated environments and models, hardware interfaces, ground processing requirements, interface verification requirements, and operational requirements prior to the VBR.

The Contractor shall deliver the analysis documentation in accordance with DRD C4-2 to provide evidence that the environments the ORU will be exposed to on the Contractor's integrated carrier assembly meet the required ORU environments. The Contractor shall perform the following tasks for the NASA-provided cargo:

a) External cargo Interface Control

2.4.1. Unpressurized Cargo Analysis and Integration

The Contractor shall perform the analysis and integration tasks required to safely integrate unpressurized (external) orbital replacement units (ORUs) or Payloads for delivery to the ISS. These tasks include cargo integration and analysis, and on-orbit operations analysis.

The Contractor shall submit a Vehicle IDD (DRD C3-1) which will provide the launch and orbital vehicle environments. NASA will use this data to assess the compatibility of NASA cargo with the launch vehicle. NASA will provide the Contractor a listing of FSE/FRAM types needed two weeks after ATP and final external cargo manifest, including associated environments and models, hardware interfaces, ground processing requirements, interface verification requirements, and operational requirements prior to the VBR.

The Contractor shall perform a Design Loads Analysis to validate the Vehilce IDD environments at a range of cargo configurations. The contractor shall analyze external launch cargo configurations including the following launch and return cases: Launch - light, medium and heavy 3 FRAM manifest (light, medium, and heavy) and light, medium and heavy non-standard manifest

- Agreement (ICA) for items hard-mounted on the external carrier as identified in the Initial MRAD. The external cargo ICA shall be submitted in accordance with DRD C3-2 at L-14 months as required. A preliminary external carrier layout shall be presented per DRD C3-2 and reviewed at the MIR. The final layout will be delivered with the Initial MRAD.
- b) Perform mission specific structural, thermal, and functional assessments to ensure the feasibility of the configuration for a mission. The assessment shall include a Design Couple Load Analysis (DLA) of mission specific cargo, flight support equipment, and carrier in accordance with DRD C4-2 at L-10 months. The sensitivity of ORU response to cargo configuration (location, mass, etc.) shall be analyzed and the preferred configuration provided. The expected ORU environments during all phases of flight shall be delivered in accordance with DRD C4-2. If hardware requirements cannot be met, the Contractor shall coordinate resolution with the ISS Program or International Partner (IP) hardware provider or NASA-designated representative prior to submission of the initial MRAD (DRD C4-2).
- c) Provide external carrier integrated assembly data in accordance with DRD C3-2 to NASA for EVA/EVR analysis. The EVR assessment includes kinematics and reach and access analysis of the Space Station Remote Manipulator System (SSRMS) or Special Purpose Dexterous Manipulator (SPDM). The EVA analysis includes EVA crew reach and access and assesses translation corridors.
- d) Perform analyses and fit check (by

- (i.e. CDA/Grapple Bar) using NASA cargo FEMs and/or dummy mass items. Return – 1 FRAM manifest.
- The Contractor shall deliver the analysis documentation in accordance with DRD C4-2 to provide evidence that the environments the ORU will be exposed to on the Contractor's integrated carrier assembly meet the required ORU environments. The Contractor shall perform the following tasks for the NASA-provided cargo:
- a) External cargo Interface Control Agreement (ICA) for items hard-mounted on the external carrier as identified in the Initial MRAD. The external cargo ICA shall be submitted in accordance with DRD C3-2 at L-14 months as required. A preliminary external carrier layout shall be presented per DRD C3-2 and reviewed at the MIR. The final layout will be delivered with the Initial MRAD.
- b) Perform mission specific structural, thermal, and functional assessments to ensure the feasibility of the configuration for a mission. The assessment shall include a Couple Load Analysis (DLA) of mission specific cargo, flight support equipment, and carrier in accordance with DRD C4-2 at L-10 months. The sensitivity of ORU response to cargo configuration (location, mass, etc.) shall be analyzed and the preferred configuration provided. The expected ORU environments during all phases of flight shall be delivered in accordance with DRD C4-2. If hardware requirements cannot be met, the Contractor shall coordinate resolution with the ISS Program or International Partner (IP) hardware provider or NASA-designated representative prior to submission of the initial MRAD (DRD C4-2).
- c) Provide external carrier integrated assembly data in accordance with DRD

- using hardware or simulator approved by ISS Program) assessments to ensure the Carrier interface is compatible with existing ISS on-orbit stowage sites in accordance with SSP 42003, Space Station Manned Base (SSMB) to Mobile Servicing System (MSS) ICD.
- e) Develop mass property data and finite element math models of the mission specific carrier in accordance with DRD C3-2.
- f) Perform external physical integration of the Cargo, FSE/OSE and SpaceX Dragon trunk. For ORUs, NASA will delivery to SpaceX the ORU NLT L-3 months. SpaceX will integrate the ORU and SpaceX build FSE/OSE into an integrated assembly and perform the final integration into the Dragon Trunk. For Payloads, SpaceX will provide required FSE (Active FRAM) to the Payload Developer NLT L-18 months. NASA/Payload Developer will integrate the ORU and the SpaceX built FRAM into an integrated assembly and delivery the integrated assembly to SpaceX NLT L-3 months. SpaceX will perform the final integration into the Dragon Trunk.
- C3-2 to NASA for EVA/EVR analysis. The EVR assessment includes kinematics and reach and access analysis of the Space Station Remote Manipulator System (SSRMS) or Special Purpose Dexterous Manipulator (SPDM). The EVA analysis includes EVA crew reach and access and assesses translation corridors.
- d) Perform analyses and fit check (by using hardware or simulator approved by ISS Program) assessments to ensure the Carrier interface is compatible with existing ISS on-orbit stowage sites in accordance with SSP 42003, Space Station Manned Base (SSMB) to Mobile Servicing System (MSS) ICD.
- e) Develop mass property data and finite element math models of the mission specific carrier in accordance with DRD C3-2.
- f) Perform external physical integration of the Cargo, FSE/OSE and SpaceX Dragon trunk. For ORUs, NASA will deliver the ORU to SpaceX no later than L-3 months. SpaceX will integrate the ORU and SpaceX- built FSE/OSE into an integrated assembly and complete final integration into the Dragon Trunk. For Payloads, SpaceX will provide required FSE (Active FRAM) to the Payload Developer no later than L-18 months. NASA/Payload Developer will integrate the ORU and the SpaceX-built FRAM into an integrated assembly and deliver the integrated assembly to SpaceX no later than L-3 months. SpaceX will complete final integration into the Dragon Trunk.
- g) Perform Launch on Need (LON) analytical and physical integration for one SAPA mounted ORU as defined by NASA per schedule in DRD C1-7.

2.4.2. Pressurized Cargo Analysis and

2.4.2. Pressurized Cargo Analysis and Integration

Integration

The Contractor shall perform the analysis and integration tasks required to safely integrate pressurized cargo for delivery to the ISS. NASA will provide a preliminary pressurized cargo complement after the MIR, and NLT L-12 months. The pressurized cargo complement will define a specified number of high, medium, and low density bags; bag sizes; any internal ORUs or payloads that need to be hard mounted: and preliminary late stow and early destow requirements. For cargo requiring hard mounting, the associated resource, operational, interface verification, and ground processing requirements, and orientation constraints will also be provided at this time. The Contractor shall perform the following:

- a) Develop an internal cargo ICA in accordance with DRD C4-4 for items planned to be hard-mounted in the orbital vehicle pressurized module volume per Initial MRAD (DRD C4-2).
- b) Provide a orbital vehicle pressurized module physical configuration per Initial MRAD (DRD C4-2) with margins (+/-) for each bag from a mass and cg perspective.
- c) Perform analyses of all cargo test and analytical data as it pertains to the physical (structural) and environmental (thermal, acoustics, electromagnetic interference and compatibility (EMI/C)) interfaces with the orbital vehicle. The Contractor shall perform mission specific structural, thermal, and functional assessments to ensure the feasibility of the configuration for each mission. This will include a Coupled Load Analysis (CLA) of mission specific cargo, flight support equipment and

The Contractor shall perform the analysis and integration tasks required to safely integrate pressurized cargo for delivery to the ISS. NASA will provide a preliminary pressurized cargo complement after the MIR, and NLT L-12 months. The pressurized cargo complement will define a specified number of high, medium, and low density bags; bag sizes; any internal ORUs or payloads that need to be hard mounted; and preliminary late stow and early destow requirements. For cargo requiring hard mounting, the associated resource, operational, interface verification, and ground processing requirements, and orientation constraints will also be provided at this time. The Contractor shall perform the following:

- a) Develop an internal cargo ICA in accordance with DRD C4-4 for items planned to be hard-mounted in the orbital vehicle pressurized module volume per Initial MRAD (DRD C4-2).
- b) Provide a orbital vehicle pressurized module physical configuration per Initial MRAD (DRD C4-2) with margins (+/-) for each bag from a mass and cg perspective.
- c) Perform analyses of all cargo test and analytical data as it pertains to the physical (structural) and environmental (thermal, acoustics, electromagnetic interference and compatibility (EMI/C)) interfaces with the orbital vehicle. The Contractor shall perform mission specific structural, thermal, and functional assessments to ensure the feasibility of the configuration for each mission. This will include a Coupled Load Analysis (CLA) of mission specific cargo, flight support equipment and orbital vehicle per the Initial MRAD (DRD C4-2). The Contractor shall coordinate resolution with NASA on any

- orbital vehicle per the Initial MRAD (DRD C4-2). The Contractor shall coordinate resolution with NASA on any exceedances of the NASA-provided cargo environments.
- d) Provide updated analysis and products per the Final MRAD (DRD C6-1). NASA will provide the Contractor an updated cargo complement prior to the CIR and NLT 5 months prior to launch. The updated cargo complement will identify updated late stow and early destow requirements and bag serial numbers with their required locations in the orbital vehicle per the Contractor-provided constraints detailed in the Initial MRAD.
- e) Utilize the Joint Payload Integration Application (JPIA) to aid in the cargo packing analysis.

- exceedances of the NASA-provided cargo environments.
- d) Provide updated analysis and products per the Delta MRAD (DRD C6-1) and Final MRAD (DRD C6-4). NASA will provide the Contractor an updated cargo complement prior to the CIR and NLT 5 months prior to launch and at L-6 weeks post-packaging/bench review. The updated cargo complement will identify updated late stow and early destow requirements and bag serial numbers with their required locations in the orbital vehicle per the Contractor-provided constraints detailed in the Initial MRAD.
- e) Utilize and provide to NASA the Joint Payload Integration Application (JPIA) to aid in the cargo packing analysis.
- f) Perform a Design Loads Analysis to validate the Vehicle IDD environments at a range of cargo configurations. The contractor shall at a minimum analyze a light, medium and heavy pressurized cargo configuration for launch and return using NASA Middeck cargo FEMs and/or dummy mass items.

2.4.3. Cargo Physical Processing

The Contractor shall process cargo in accordance with SSP 50833, Cargo IRD. The Contractor shall provide Flight Support Equipment (FSE), Orbital Support Equipment (OSE), Ground Support Equipment (GSE), and any other hardware needed to process and deliver the cargo to the ISS excluding SpaceX Mission 3 where NASA will supply required external FSE/OSE. The Contractor shall document the required ground handling procedures or constraints for complex cargo items such as external ORUs or internal hard mount items in accordance with DRD C3-2 or C4-4 as applicable.

2.4.3. Cargo Physical Processing

The Contractor shall process cargo in accordance with SSP 50833, Cargo IRD. The Contractor shall provide Flight Support Equipment (FSE), Orbital Support Equipment (OSE), Ground Support Equipment (GSE), and any other hardware needed to process and deliver the cargo to the ISS with the exception of SpaceX Mission 3 where NASA will supply the required external FSE/OSE. The Contractor shall document the required ground handling procedures or constraints for complex cargo items such as external ORUs or internal hard mount items in accordance with DRD C3-2 or C4-4 as applicable.

2.4.3.1. Standard Cargo

NASA will turn over the standard cargo, which includes both external and internal cargo, to the Contractor at the Contractor's payload processing facility in accordance with the MIOMP (DRD C1-7). The Contractor shall perform all functions required to safeguard, stow, track and integrate the standard cargo into the orbital vehicle. These functions shall be applied to the cargo at the level delivered by NASA (at the ORU or bag level) or at the integrated assembly level if applicable for unpressurized cargo.

The Contractor shall accept NASA cargo as late as L-18 days, unless otherwise agreed upon and arranged by NASA and the Contractor.

In the event of a launch scrub, the Contractor shall position clean facilities around the side hatch to allow access to the Late Access payload. If removal and storage is required, the payload shall be placed in a secure transport locker that provides cleanliness, power and data to the cargo inside, still contained in its original container, and be transported back to the Integration Facility for storage. Reintegration shall follow the typical launch campaign timeline with load into Dragon occurring at L-9 hours to ensure closeout at L-5 hours.

2.4.3.2. Late Stow Cargo

NASA will turn over the late stow cargo in accordance with the MIOMP (DRD C1-7). The Contractor shall perform all functions required to safeguard, stow, track and integrate the late stow cargo into the orbital vehicle. The Contractor shall document the late stow cargo for each mission within DRD C4-2 and DRD C6-1.

2.4.3.1. Standard Cargo

NASA will turn over the standard cargo, which includes both external and internal cargo, to the Contractor at the Contractor's payload processing facility in accordance with the MIOMP (DRD C1-7). The Contractor shall perform all functions required to safeguard, stow, track and integrate the standard cargo into the orbital vehicle. These functions shall be applied to the cargo at the level delivered by NASA (at the ORU or bag level) or at the integrated assembly level for unpressurized cargo, if applicable.

The Contractor shall accept NASA cargo as late as L-12 hours, unless otherwise agreed upon and arranged by NASA and the Contractor.

In the event of a launch scrub, the Contractor shall position clean facilities around the side hatch to allow access to the Late Access payload. If removal and storage is required, the payload shall be placed in a secure transport locker that provides cleanliness, power and data to the cargo inside, still contained in its original container, and be transported back to the Integration Facility for storage. Reintegration shall follow the typical launch campaign timeline with load into Dragon occurring at L-9 hours to ensure closeout at L-5 hours.

2.4.3.2. Late Stow Cargo

NASA will turn over the late stow cargo in accordance with the MIOMP (DRD C1-7). The Contractor shall perform all functions required to safeguard, stow, track and integrate the late stow cargo into the orbital vehicle. The Contractor shall document the late stow cargo for each mission within DRD C4-2, DRD C6-1 and DRD C6-4.

The Contractor shall provide the capability

The Contractor shall provide a mass simulator of items identified for late-load, allowing flexibility if the item does not meet the launch deadline. These items may include the direct mount, single or double locker equivalent payloads.

for a mass simulator of items identified for late-load, allowing flexibility if the item does not meet the launch deadline. These items may include the direct mount, single or double locker equivalent payloads.

2.4.5. Cargo Labeling

The Contractor shall provide labeling requirements for any non-NASA cargo in the Initial MRAD (DRD C4-2). NASA will provide the appropriate labels to the Contractor prior to integration of the cargo into the vehicle. The Contractor will not be responsible for labeling or verification of labeling of NASA cargo. Contractor-manifested cargo that will not transfer to the ISS once on-orbit does not require labels from NASA.

The Contractor shall accomplish the following tasks:

- a) The Contractor shall affix Inventory Management System (IMS) bar code labels to Commercial payloads that will be transferred from the orbital vehicle to the ISS.
- b) The Contractor will not be responsible for labeling or verification of labeling of NASA cargo. However, the Contractor shall correlate IMS bar code numbers to stowage location data for all cargo flown and provide this data to NASA in accordance with the Final MRAD (DRD C6-1).
- c) The Contractor shall provide the locations of packed cargo per the Final MRAD (DRD C6-1) at L-3 months.

2.4.5. Cargo Labeling

The Contractor shall provide labeling requirements for any non-NASA cargo in the Initial MRAD (DRD C4-2). NASA will provide the appropriate labels to the Contractor prior to integration of the cargo into the vehicle. The Contractor will not be responsible for labeling or verification of labeling of NASA cargo. Contractormanifested cargo that will not transfer to the ISS once on-orbit does not require labels from NASA.

The Contractor shall accomplish the following tasks:

- a) The Contractor shall affix Inventory Management System (IMS) bar code labels to Commercial payloads that will be transferred from the orbital vehicle to the ISS.
- b) The Contractor will not be responsible for labeling or verification of labeling of NASA cargo. However, the Contractor shall correlate IMS bar code numbers to stowage location data for all cargo flown and provide this data to NASA in accordance with the Final MRAD (DRDC6-4).
- c) The Contractor shall provide the locations of packed cargo per the Delta MRAD (DRD C6-1) at L-3 months and the Final MRAD (DRDC6-4) at L-1 month.

2.4.7. Cargo Return and/or Disposal

The Contractor shall return or dispose

2.4.7. Cargo Return and/or Disposal

The Contractor shall return or dispose

cargo per the return cargo complement identified prior to CIR or NLT L-5 months. The Contractor shall identify constraints to the on-orbit packing of cargo for return per the Final MRAD (DRD C6-1). NASA will maintain the capability to adjust the return cargo complement within the identified constraints while the orbital vehicle remains berthed to the ISS.

cargo per the return cargo complement identified prior to CIR or NLT L-5 months. The Contractor shall identify constraints to the on-orbit packing of cargo for return per the Final MRAD (DRD C6-4). NASA will maintain the capability to adjust the return cargo complement within the identified constraints while the orbital vehicle remains berthed to the ISS.

2.4.7.1. Cargo Return Configuration

The Contractor shall deliver at L-1 month, per DRD C6-1, the return cargo configuration layout and analytical products required for un-berthing.

2.4.7.1. Cargo Return Configuration

The Contractor shall deliver at L-1 month, per DRD 6-4, the return cargo configuration layout and analytical products required for un-berthing.

2.4.7.2. Accommodate Early Destow Cargo

The Contractor shall return early destow cargo in accordance with the MIOMP (DRD C1-7). The Contractor shall document the early destow cargo for each mission within DRD C4-2 and DRD C6-1.

2.4.7.2. Accommodate Early Destow Cargo

The Contractor shall return early destow cargo in accordance with the MIOMP (DRD C1-7). The Contractor shall document the early destow cargo for each mission within DRD C4-2, DRD C6-1 and DRD C6-4.

2.5.2.1. Integrated Cargo Safety Assessment

Based on the information reported to NASA in the Initial MRAD (DRD C4-2), NASA will provide the Contractor with a copy of its initial cargo safety assessment at L-5 months for each mission. The Contractor shall submit an integrated cargo Phase III hazard report (DRD C5-2) per SSP 30599 at L-4 months, to ensure that

2.5.2.1. Integrated Cargo Safety Assessment

Based on the information reported to NASA in the Initial MRAD (DRD C4-2), NASA will provide the Contractor with a copy of its initial cargo safety assessment at L-5 months for each mission. The Contractor shall submit an integrated cargo Phase III hazard report (DRD C5-2) per SSP 30599 at L-4 months, to ensure that

the packaging of the cargo complement does not include hazards with insufficient controls. The Contractor shall submit a delta integrated cargo hazard report at L-6 weeks according to DRD C6-3 that represents the final integrated cargo hazard assessment provided to NASA.

the packaging of the cargo complement does not include hazards with insufficient controls. The Contractor shall submit delta integrated cargo hazard reports at L-3 months and final at L-1 month according to DRD C6-3 based on updated and final integrated cargo hazard assessments provided by NASA.

7. Revised Table V.B-1 to add the following changes:

TABLE V.B-1 DRDS REQUIRED NEAR RFP RESPONSE

Îtem	Document	Approve/ Review	Initial Due Date	Recurrence	Reference
C1-1	Reserved				
C1-2	Mishap Notification, Investigation and Contingency Action Plan	Review	With Proposal	Updates at Program Reviews	SOW 2.5.4
C1-3	Reserved				
C1-4	Configuration Management Plan	Review	With Proposal	Updates at Program Reviews	SOW 2.1.2
C1-5	Export Control Plan	Approve	Contract Award +30 days	Updates at Program Reviews	SOW 2.1.3, 2.3.3.3.1
C1-6	Reserved				000101
C1-7	Mission Integration & Operations Management Plan	Approve	With Proposal	Updates at Program Reviews	SOW 2.1, 2.3.1, 2.4.3.1, 2.4.3.2, 2.4.7.2
C1-8	Work Plan	Approve	With Proposal	ATP minus 30 days and following ATP, within 30 days of any mission's schedule changes	SOW 2.3.1
C1-9	Reserved				
C-10	Safety Data Package	Review	When delivered to Range	Each mission	SOW 2.5.3

TABLE V.B-2 RECURRING DRDS

Item	Document	Approve/ Review	Initial Due Date	Recurrence	Reference
C2-1	Formal Review Documentation	Review	First formal review	At every review	SOW 2.1.1
C2-2	Integrated Schedules	Review	T.O. Award +30 days	Updated Biweekly	SOW 2,1.4

TABLE V.B-3 DRDS REQUIRED NEAR VBR

Item	Document	Approve/ Review	Initial Due Date	Recurrence	Reference
C3-1	Vehicle Interface Definition Document (IDD)	Approve	VBR for first mission	Updates only, at later VBRs	SOW 2.1.1.2, 2.2.2, 2.4.1
C3-2	External Cargo Interface Control Agreement	Approve	L-14 months	Each mission	SOW 2.4.1, 2.4.3
C3-3	Launch Vehicle Flight Software Input for IV&V Review	Review	VBR for first mission	Updates only, at later VBRs	SOW 2.1.1.2.1
C3-4	Launch Vehicle Guidance, Navigation and Controls Input for IV&V	Review	VBR for first mission	Updates only, at later VBRs	SOW 2.1.1.2.1
C3-5	Launch Vehicle Key Systems Qualification Data	Review	VBR for first mission	Updates only, at later VBRs	SOW 2.1.1.2.1

TABLE V.B-4 DRDS REQUIRED NEAR MIR

Item	Document	Approve/ Review	Initial Due Date	Recurrence	Reference
C4-1	Engineering Computer- Aided Design (CAD) Models	Review	MIR for first mission	Within 7 days of any updated drawing release	SOW 2.3.2
C4-2	Initial Mission Resource Allocation Document	Approve	L-10 months	Each mission	SOW 2.3, 2.4, 2.5.2.1
C4-3	Imagery Plan	Review			SOW 2.3.3.2
C4-4	Internal Cargo Interface Control Agreement	Approve	L-8 months	Each mission	SOW 2.4

				00337
C4-5 Mission Training	Approve	ATTO	Each	SOW
C4-5 Mission Training		L-22 NOS	mission	2.3.3.4

TABLE V.B-5 DRDS REQUIRED NEAR CIR

Item	Document	Approve/ Review	Initial Due Date	Recurrence	Reference
C5-1	Initial Flight Products	Review	L-5 months	Each mission	SOW 2,3.3.3
C5-2	Integrated Cargo Phase III Hazard Report	Approve	L-4 months	Each mission	SOW 2.5.2.1

TABLE V.B-6 DRDS REQUIRED NEAR LAUNCH

Item	Document	Approve/ Review	Initial Due Date	Recurrence	Reference
C6-1	Delta Mission Resource Allocation Document	Approve	L-3 months	Each mission	SOW 2.4
C6-2	Final Flight Products	Review	L-2 weeks	Each mission	SOW 2.3.3.3
C6-3	Delta Integrated Cargo Hazard Report	Approve	L-3 months and L-1 month	Each mission	SOW 2.5.2.1
C6-4	Final Mission Resource Allocation Document	Approve	L-1 months	Each mission	SOW 2.4

TABLE V.B-7 DRDS REQUIRED POST FLIGHT

Item	Document	Approve/ Review	Initial Due Date	Recurrence	Reference
C7-1	Preliminary Post Flight Assessment	Review	EOM+ 7 days	Per mission (telemetry only, on non-CRS missions)	SOW 2.1.1.2.4, 2.2.2, 2.6
C7-2	Final Post Flight Assessment	Review	EOM+ 60 days	Per mission including non- CRS missions	SOW 2.1.1.2.1, 2.6

8. Revise Data Requirement Description Number C4-2

C4-2: INITIAL MISSION RESOURCE ALLOCATION DOCUMENT (MRAD #1)
DESCRIPTION/PURPOSE:

To establish the allocation of resources and the technical requirements for integration of the cargo elements and their support hardware with the orbital vehicle pressurized module and external carrier system for each resupply mission. The associated analyses will provide the required assessment to show cargo compatibility with the associated vehicle environments defined in the IDD and vehicle compatibility with SSP 50808.

DATA REQUIREMENTS:

- a) The Contractor's format will be acceptable, except for those sections concerned with stowage and labeling data for payloads on ISS logistics missions.
- b) The report shall be in response to an initial NASA cargo complement delivered at L-12 months. The Contractor's response (this MRAD) shall address specific technical and operational issues pertaining to each proposed cargo item and contain recommendations for combining the proposed cargo items into an optimized internal and external configuration based on the priorities of the proposed cargo item and overall resource allocation.
- c) The MRAD shall be the source of accurate data pertaining to the mission-unique mass, volume and other resources allocated to each cargo item, and its supporting hardware, assigned to the Contractor.
- d) The following categories of requirements shall be included in this DRD:
 - 1) Mission physical configuration of the orbital vehicle pressurized module and external carrier, including ascent, on-orbit, and return stowage configurations (cargo layouts)
 - 2) Mass and volume allocations for each bag or individual cargo item and its support hardware to ensure future updates stay within acceptable mass/cg envelopes. (Updated JPIA for Pressurized cargo)
 - 3) Mission complement electrical power and energy all mission phases (as applicable)
 - 4) Command and data requirements
 - 5) Experiment/ORU thermal/environmental assessment including Launch to Activation Analysis for external cargo and flight profile
 - 6) Orbital vehicle dynamics and mass properties
 - 7) Robotic and berthing requirements
 - 8) Orbital vehicle structural math model
 - 9) Orbital vehicle thruster plume and firing history, propellant types
 - 10) Initial Verification Loads Analysis (VLA)
 - i) Report shall include expected pressurized cargo and ORU environments during all phases of flight and associated margins against NASA-provided environmental limits

 - ii) Report shall include guaranteed environment during flight

 11) Late access and/or early retrieval

 12) Flight operations support, standards for console time and Certification status of support personnel
 - 13) Mission-unique hardware and government furnished equipment (GFE)
 - 14) Crew Equipment Interface Test Dates

I's required di Consultability 15) Any vehicle design changes that may affect the requirements in SSP 50808 and associated analytical products necessary for the berthing of the Contractor's onorbit vehicle.

9. Add Data Requirement Description Number C4-5

	DATA	REQUIREMENT DESCRIPTION Number: C4-5
	C4-5: I	VISSION TRAINING P
	DESCR	CATION/PURPOSE: (La Fligh Directors, System Operators, Navigation Officers, etc.)
	accomp provide concurr	will provide NASA personnel and ISS crews with necessary training to blish SpaceX missions. This DRD provides a mechanism for the Contractor to the generic and mission specific training tens to NASA for evaluationard rence.
10	Frainin	g plans will be provided to NASA at ATP and updated as required, Cnew ruish of Mile, L-12 mos)
	DATA	REQUIREMENTS
	a)	Fundamental Dragen spacecraft training plan for USOS crept nominally to occur within L-26 to L-24 months
	b)	Focused mission training plan for USOS crews nominal to occur within L-24 to
	c)	Focused mission training or update briefing plan to Crew nominally occurring within 1-12 to 1-6 months
4	18° 00	Crew On Board training session on ingress/vehicle systems that have crew
0		interface/cargo obs
	e)	Unpressurized cargo training and rehearsal plan based on mission manifest including some amount of joint training to allow for adequate mission preparation.
	f)	Flight control training plan and planned simulations 1) Flight Specific Sims shall consist of objectives that include at least one Rndz to ISS resulting in capture, one attached phase and one unberthing and departure insulations an additional objective of one off-nominal event resulting in a aborted text ated Rndz, failed capture or off nominal unberth or train,

SpaceX developed crew training should include the following guidelines:

2) Simulations may occur in four separate events or all as one.

departure well be performed.

 Fundamental spacecraft training should be executable within teight hour session on one day no later then L-24 months

2) Focused mission training should be executable within (TBD)

3) Crew On Board training session on ingress/vehicle systems that have crew interface/cargo ops should be executable within 1 hour and occur no later than the day before vehicle Rendezvous

10. Revise Data Requirement Description Number C6-1

C6-1: DELTA MISSION RESOURCE ALLOCATION DOCUMENT (MRAD #2) DESCRIPTION/PURPOSE:

To establish the allocation of resources and the technical requirements for integration of the cargo elements and their support hardware with the orbital vehicle pressurized module and external carrier system for each resupply mission. The associated analyses will provide the required assessment to show cargo compatibility with the associated vehicle environments defined in the IDD and vehicle compatibility with SSP 50808.

The Contractor shall provide a Delta MRAD that contains the updated analytical data as reported in the initial MRAD but is based on the NASA updated cargo complement and configuration.

DATA REQUIREMENTS:

- a) The Contractor's format will be acceptable, except for those sections concerned with stowage and labeling data for payloads on ISS logistics missions.
- b) The report shall be in response to the updated NASA cargo complement delivered NLT L-6 months. The Contractor's response shall contain the an optimized internal and external configuration based on the priorities of the proposed cargo item and overall resource allocation. Any technical or operational issues that could not be resolved shall be documented in the report with a recommended forward action plan. This report shall also capture the final planning and associated milestones with vehicle design changes that may affect the requirements in SSP 50808 and associated analytical products necessary for the berthing of the Contractor's on-orbit vehicle.
- c) The MRAD shall be the source of accurate data pertaining to the mission-unique mass, volume and other resources allocated to each cargo item, and its supporting hardware, assigned to the Contractor. All data shall be updated with the latest cargo complement.
- d) The following categories of requirements shall be included in this DRD with updates or final configuration data:
 - Updated Mission physical configuration of the orbital vehicle pressurized module and external carrier, including ascent, on-orbit, and return stowage configurations (cargo layouts)
 - Updated Mass and volume allocations for each bag or individual cargo item and its support hardware (Updated JPIA for Pressurized cargo)
 - Final Mission complement electrical power and energy all mission phases (if changed)
 - 4) Final Command and data requirements if changed
 - 5) Final Experiment/ORU thermal/environmental assessment including Launch to Activation Analysis for external cargo and flight profile
 - 6) Updated Orbital vehicle dynamics and mass properties
 - 7) Final Robotic/berthing requirements if changed

- 8) Final Orbital vehicle structural math model if changed
- 9) Final Orbital vehicle thruster plume and firing history, propellant types if changed
- 10) Final Verification Loads Analysis (VLA)
 - i) Report shall include expected ORU environment during all phases of flight and associated margins against NASA-provided environmental limits
 - ii) Report shall include guaranteed environment during flight
- 11) Updated plan for late access and/or early retrieval if changed
- 12) Final Flight operations support plan if changed
- 13) Additional Mission-unique hardware and GFE requested and Development plan if changed
- 14) Final Crew Equipment Interface Test Dates
- 15) IMS Bar Code Report including Transfer Bag or Item Name (from label), serial number, IMS bar code label and size

11. Add Data Requirement Description Number C6-4

C6-4: FINAL MISSION RESOURCE ALLOCATION DOCUMENT (MRAD #3) DESCRIPTION/PURPOSE:

To establish the allocation of resources and the technical requirements for integration of the cargo elements and their support hardware with the orbital vehicle pressurized module and external carrier system for each resupply mission. The associated analyses will provide the required assessment to show cargo compatibility with the associated vehicle environments defined in the IDD and vehicle compatibility with SSP 50808.

The Contractor shall provide an Final MRAD that contains the analytical data required for the final cargo complement and configuration.

DATA REQUIREMENTS:

- e) The Contractor's format will be acceptable, except for those sections concerned with stowage and labeling data for payloads on ISS logistics missions.
- f) The report shall be in response to a final set of NASA cargo complement delivered at L-6 weeks (Pressurized cargo complement changes only). The Contractor's response shall contain the an optimized internal and external configuration based on the priorities of the proposed cargo item and overall resource allocation. Any technical or operational issues that could not be resolved shall be documented in the report with a recommended forward action plan. This report shall also capture the final planning and associated milestones with vehicle design changes that may affect the requirements in SSP 50808 and associated analytical products necessary for the berthing of the Contractor's on-orbit vehicle.
- g) The MRAD shall be the source of accurate data pertaining to the mission-unique mass, volume and other resources allocated to each cargo item, and its supporting hardware, assigned to the Contractor. All data shall be updated with the latest cargo complement.

- h) The following categories of requirements shall be included in this DRD based on final pressurized cargo data:
 - 1) Mission physical configuration of the orbital vehicle pressurized module including ascent, on-orbit, and return stowage configurations (cargo layouts)
 - 2) Mass and volume allocations for each bag or individual cargo item and its support hardware (Updated launch and return JPIA only)
 - 3) Final Mission complement electrical power and energy all mission phases (as applicable) if changed
 - 4) Final Mass property data Actual weighted values for Dragon vehicle
 - 5) Final plan for late access and/or early retrieval if changed
 - 6) Updated IMS Bar Code Report including Transfer Bag or Item Name (from label), serial number, IMS bar code label and size if changed

12. Revise Attachment V.F. entitled Standard Resupply Service - Standard External Cargo Complement

- ORBITAL REPLACEMENT UNITS (ORUs) A.
- Direct Current Switching Unit (DCSU)* 1.
- Main Bus Switching Unit (MBSU)* 2.
- Pump Module Assembly (PMA) 3.
- Utility Transfer Assembly (UTA) 4.
- Nitrogen Resupply Bottle (NRB) 5.
- Flexible Hose Rotary Coupler (FHRC) 6.
- 7.
- Flight Releasable Attach Mechanism-based ORU 8.

* denotes also compatible with SPDM. If their FSE is designed for SPDM-compatibility, San EVA is not required for removal and reinstallation.

FRANTESED DRUS shall meet the requirements Neutrified by the NASA FRAM Interface Delivition 13. Add SAPA Small Adapter Plate Assembly to Attachment V.H., Acronyms and Decement (IDD) Abbreviations

14. Add additional Consumable items to Attachment V.K., Table V.K.1.

Table V.K.1. GOVERNMENT-SUPPLIED HARDWARE

V.N.1. GUVERNMENT-SUFF LEED THAT	
ITEM	RETURN STATUS
Flight Releasable Grapple Fixture (FRGF)	Consumable Item
EVA/IVA Labels	Consumable Item
	ITEM Flight Releasable Grapple Fixture (FRGF)

15. Revise Attachment V.L., Applicable and Reference Documents Table

Applicable Documen Document #	Revision	Document Title
49 U.S.C. Subtitle		Commercial Space Launch Activities
IX, Ch. 701 14 C.F.R. Ch. III		FAA Commercial Space Transportation Regulations
	В	Aerospace Quality Management Systems Requirements
AS9100 ISO 90003	2004	Software Engineering - Guidelines for the Application of ISO 9001:2000 to Computer Software
NPR 1600.1	1	NPR for Security Programs
NPR 2810.1	A	Security of Information Technology
NPR 8715.6	Baseline	NPR for Limiting Orbital Debris
	D	Space Shuttle Contamination Control Requirements
SN-C-0005 SSP-30309	E	Safety Analysis and Risk Assessment Requirements Document
SSP-30599	D	Safety Review Process
SSP-42003	Part 1: G Part 2: B	Space Station Manned Base to Mobile Servicing System ICD
SSP-50190	Е	Contingency Action Plan
SSP-50525	Baseline	Security Management Plan
SSP-50808	В	ISS Interface Requirements Document
SSP-50833	Baseline	NASA Cargo IRD

Document #	Revision	Document Title
NPR 8621.1	В	Mishap and Close Call Reporting, Investigating and Recordkeeping
NPR 8715.3	С	NASA General Safety Requirements
NASA-STD 8739.8	1	Software Assurance Standard
SSP-50123	С	Configuration Management Handbook
SSP 57012	Baseline	ISS External Flight-Releasable Attachment Mechanism (FRAM) - Based Payload Common Launch Interface Requirement Document (IRD)
SSP 50835	В	ISS Pressurized Volume Hardware Common Interface Requierments Document

B. Contractor Statement of Release

In consideration of the modification(s) agreed to herein as complete equitable adjustments for the Contractor's ISS Integration 50% Completion Milestone Adjustment," the Contractor hereby releases the Government from any and all liability under this contract for further equitable adjustments attributable to such facts or circumstances giving rise to the need for this adjustment.

C. All other terms and conditions remain unchanged and in full force and effect.

•

		1, CONTRACT ID CODE	PAGE OF PAGES
AMENDMENT OF SOLICITATION/MO	DIFICATION OF CONTRACT		1 4
AMENDMENTIMODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (Wepplicable)
000027	See Block 16C	4200369567	
LISSUED BY	CODE JSC	7. ADMINISTERED BY (If other than Item 6)	CODE JSC
WASA/Johnson Space Cente Attn: BG / Eric J. Schel 2101 NASA Parkway Houston TX 77058-3696		NASA/Johnson Space Cent Attn: BG / Sharan D. Lo 2101 NASA Parkway Houston TX 77058-3696	er fton
B. NAME AND ADDRESS OF CONTRACTOR (A	io., street, colinty, State and 2IP Code)	(x) SA, AMENDMENT OF SOLICITATION NO	,
PACEX ROCKET RD MANTHORNE CA 90250		9B. DATEO (SEE ITEM 11)	
		x 10A. MODIFICATION OF CONTRACT/OR NNJ09GA04B	DER NO.
		10B. DATED (SEE ITEM 13)	
CODE 3EVL8	FACILITY CODE	02/26/2009	
~	11. THIS ITEM ONLY APPLIE	S TO AMENDMENTS OF SOLICITATIONS	
ORDER NO. IN ITEM 10A.		y) THE CHANGES SET FORTH IN ITEM 14 ARE MAI FLECT THE ADMINISTRATIVE CHANGES (such as of ME AUTHORITY OF FAR 43,103(b).	
C. THIS SUPPLEMENTAL AGE	EEMENT IS ENTERED INTO PURSUAN	TTO AUTHORITY OF:	
D. OTHER (Specify type of mod	dicalion and authority)		- 440
R Clause II.A.F., MFS	1852-232-77, Limitation of	f Funds (Fixed-Price Contract) (Ma	
	is not. Six required to sign this docum	nent and refurncopies to the ings, including solicitation/contract subject matter when	issuing office.
See continuation page			
		A or 10A, as herotofore changed, remains unchanged	and in full force and effect.
15A, NAME AND TITLE OF SIGNER (Type or I		18A. NAME AND TITLE OF CONTRACTIN	GOFFICER (Type or plant)
15B. CONTRACTOR OFFEROR	15C, DATE SIG		16C. DATE SIGNED
mative of person cuthorized to ag	· · · · · · · · · · · · · · · · · · ·	(Signature of Contracting Office	n in

NSN 7540-01-152-8070 Previous action ununable STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243 The purpose of this modification is to:

- 1. Increase funding on this contract from (b) (4)
- Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):
 - (a) Of the total price of CLINs 0001 through 0004, the sum of presently available for payment and allotted to this contract.
 - (c)(1) It is contemplated that funds presently allotted to this contract will cover work to be performed until (b) (4)
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

II.A.2 NFS 1852.232-77 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (MAR 1989)

- (a) Of the total price of CLINs 0001 through 0004, the sum of 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 as required by the payment schedule in Clause II.A.6, until the total price of said CLINs is allotted.
- (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 Section II, Clause 52.212-4(l), Termination for the Government's Convenience, of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1. 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 contract Section II, Clause 52.212-4(l) notwithstanding.
- (c) Reserved.
 - (1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
 - (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 sixty (60) days the work will reach a point at which, if the contract is terminated pursuant to contract Section II, Clause 52.212-4(l) of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1.
 - (3) Reserved.
 - (i) The notice shall state the estimate when the point referred to in paragraph I(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, sixty (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 contract Section II, Clause 52.212-4(1).

- (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(s) (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 Termination for Cause 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 contract Section II, Clause 52.212-4(l).

(End of clause)

		ATION OF CONTRACT	1 i
AMENDMEN'	T/MODIFICATION NO.	3. EFFECTIVE DATE	4 REQUISITION/PURCHASE REQ. NO. 5. PROJECT NO. (If applicable)
00028		See Block 16C	7. ADMINISTERED BY (If other than item 6) CODE JSC
ISSUED BY	CODE	JSC	7. ADMINISTERED OF (A SUID MICH. ST. C.)
ttn: BG 101 NAS	nson Space Center / Eric J. Schell A Parkway TX 77058-3696		NASA/Johnson Space Center Attn: BG / Sharan D. Lofton 2101 MASA Parkway Houston TX 77058-3696
PACEX ROCKET	RD E C7. 90250	s, county, State and TIP Code)	(X) 9A. AMENDMENT OF SOLICITATION NO GB. DATED (SEE ITEM 11) 10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ09GA04B
			SOR DATED (SEE ITEM 63)
		CAN ITY CODE	108 DATED (SEE ITEM 13)
The above n Offers must	15, and returning Co	forth in tiem 14. The hour and date prior to the hour and date specified opies of the amendment, (b) By ack	ESTO AMENDMENTS OF SOLICITATIONS Specified for receipt of Offers In the solicitation or as an anded, by one of the following methods: (a) By completing knowledging receipt of this smonthment on each copy of the offer submitted; or (c) By EALLINES OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT
The above in Offers must terms 8 and separate left THE PLACE virtue of this to the solicities.	numbered solicitation is amended at set if acknowledge receipt of this amendment 15, and returning co ter or telegram which includes a reference	11. THIS ITEM ONLY APPLIE forth in flem 14. The hour and date prior to the hour and date specified prior to the semendment, (b) By ack- te to the solicitation and amendment OFFERS PRIOR TO THE HOUR / ter already submitted, such change ad prior to the opening hour and dat	ESTO AMENDMENTS OF SOLICITATIONS Is pacified for receipt of Offers In the solicitation or as an anced, by one of the following methods: (a) By completing knowledging receipt of this smortdment on each copy of the offer submitted; or (c) By the functions. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by may be made by telegram or letter, provided each telegram or letter makes reference
The above in Offers must terms 8 and separate left THE PLACE virtue of this to the solicities 2 ACCOUNT	numbered solicitation is amended at set if acknowledge receipt of this amendment. 15, and returning ocupar or telegram which includes a reference DESIGNATED FOR THE RECEIPT OF amendment you desire to change an official model. If receive the change and this amendment, and is received.	11. THIS ITEM ONLY APPLIE forth in flem 14. The hour and date prior to the hour and date specified optes of the amendment, (D) By ack to the soticitation and amendmen OFFERS PRIOR TO THE HOUR / ter already submitted, such change ad prior to the opening hour and date equired)	ESTO AMENDMENTS OF SOLICITATIONS Is specified for receipt of Offers In the solicitation or as an anded, by one of the following methods: (a) By completing knowledging receipt of this amendment on each copy of the offer submitted; or (c) By at members. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by may be made by telegram or letter, provided each telegram or letter makes reference telespecified. Net Increase: (b) (4)
The above in Offers must terms 9 and separate left THE PLACE winter of this to the solicities 2 ACCOUNT	numbered solicitation is emended at set if acknowledge receipt of this amendment; 15, and returning content to telegram which includes a reference DESIGNATED FOR THE RECEIPT OF amendment you desire to change an official and this emendment, and is received into and APPROPRIATION DATA (If received in 1).	11. THIS ITEM ONLY APPLIE forth in fleen 14. The hour and date prior to the hour and date spocified prices of the amendment, (b) By ack to the solicitation and amendment OFFERS PRIOR TO THE HOUR / ter already submitted, such change ad prior to the opening hour and date required) MODIFICATION OF CONTRACTS/(ESTO AMENDMENTS OF SOLICITATIONS Specified for receipt of Offers In the solicitation or as an anded, by one of the following methods: (a) By completing to this smondment on each copy of the offer submitted; or (c) By introduced for the offer submitted; or (c) By introduced from the offer submitted; or (c
The above in Offers must terms 8 and separate left THE PLACE wittee of this to the solicities 2 ACCOUNT.	inhibered solicitation is amended at set if acknowledge receipt of this amendment; 15, and returning content to telegram which includes a reference DESIGNATED FOR THE RECEIPT OF amendment you desire to change an off-ation and this amendment, and is receive cities AND APPROPRIATION DATA (if recitive cities and appropriation DATA (if recities and appropriation DATA).	11. THIS ITEM ONLY APPLIE FOUT In flem 14. The hour and date prior to the hour and date specified objects of the amendment, (D) By ack to the solicitation and amendmen OFFERS PRIOR TO THE HOUR? For already submitted, such change ad prior to the opening hour and date required) MODIFICATION OF CONTRACTS/(C) PURSUANT TO: (Specify authority)	ESTO AMENDMENTS OF SOLICITATIONS Is specified for receipt of Offers In the solicitation or as an anded, by one of the following methods: (a) By completing to this smendment on each copy of the offer submitted; or (c) By an amendment on each copy of the offer submitted; or (c) By an amendment on each copy of the offer submitted; or (c) By an amendment of the specified of the specified of the specified of the specified. Net Increase: (b) (4) ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.
The above in Offers must lerns 8 and separate left THE PLACE virtue of this to the solicitization of the Country of the Countr	numbered solicitation is amended at set if acknowledge receipt of this amendment; 15, and returning content of the set of	11. THIS ITEM ONLY APPLIE FORTH In flem 14. The hour and date prior to the hour and date specified specs of the amendment, (D) By ack to the solicitation and amendmen OFFERS PRIOR TO THE HOUR / ter already submitted, such change ad prior to the opening hour and date required) MODIFICATION OF CONTRACTS/(C) PURSUANT TO: (Specify authorit) ACT/ORDER IS MODIFIED TO REITH IN ITEM 14, PURSUANT TO THE	ES TO AMENDMENTS OF SOLICITATIONS Is specified for receipt of Offers Is sextended. Is sextended. Is in the solicitation or as an anded, by one of the following methods: (a) By completing knowledging receipt of this amendment on each copy of the offer submitted; or (c) By introduced the specified of this amendment on each copy of the offer submitted; or (c) By introduced the specified of the specified of the specified of the specified of the specified. In the specified. In the specified. In the specified. In the specified. In the specified. In the specified of the specified of the specified of the specified. In the specified of the sp
The above in Offers must terms 8 and separate left THE PLACE virtue of this to the solicitized ACCOUNT See Sch.	inhibered solicitation is amended at set if acknowledge receipt of this amendment; 15, and returning content to telegram which includes a reference DESIGNATED FOR THE RECEIPT OF amendment you desire to change an off-ation and this amendment, and is receive cities AND APPROPRIATION DATA (if received a set of the set of	11. THIS ITEM ONLY APPLIE FORTH In flem 14. The hour and date prior to the hour and date specified specs of the amendment, (D) By ack to the solicitation and amendmen OFFERS PRIOR TO THE HOUR / ter already submitted, such change ad prior to the opening hour and date required) MODIFICATION OF CONTRACTS/(C) PURSUANT TO: (Specify authorit) ACT/ORDER IS MODIFIED TO REITH IN ITEM 14, PURSUANT TO THE	ES TO AMENDMENTS OF SOLICITATIONS Is specified for receipt of Offers Is sextended. Is sextended. Is in the solicitation or as an anded, by one of the following methods: (a) By completing knowledging receipt of this amendment on each copy of the offer submitted; or (c) By introduced the specified of this amendment on each copy of the offer submitted; or (c) By introduced the specified of the specified of the specified of the specified of the specified. In the specified. In the specified. In the specified. In the specified. In the specified. In the specified of the specified of the specified of the specified. In the specified of the sp
The above in Offers must stems 8 and separate left THE PLACE virtue of this to the solicitization of the Country of the Countr	numbered solicitation is amended at set if acknowledge receipt of this amendment; 15, and returning content to telegram which includes a reference DESIGNATED FOR THE RECEIPT OF amendment you desire to change an off ation and this amendment, and is received thing AND APPROPRIATION DATA (if received to the content of the	11. THIS ITEM ONLY APPLIE FORTH In flem 14. The hour and date prior to the hour and date specified specs of the amendment, (D) By ack to the solicitation and amendment OFFERS PRIOR TO THE HOUR? If already submitted, such change ad prior to the opening hour and date required) MODIFICATION OF CONTRACTS/C IPURSUANT TO: (Specify authorit) ACT/ORDER IS MODIFIED TO RE THE IN STEM 14, PURSUANT TO THE INT IS ENTERED INTO PURSUAN THE AND STERED INTO PURSUAN THE AND STERED INTO PURSUAN THE AND STERED INTO PURSUAN	ES TO AMENDMENTS OF SOLICITATIONS Is pacified for receipt of Offers Is extended. Is extended. Is in the solicitation or as an anded, by one of the following methods: (a) By completing knowledging receipt of this amendment on each copy of the offer submitted; or (c) By intended and the offer submitted; or (c) By the numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by may be made by telegram or letter, provided each telegram or letter makes reference to specified. Net Increase: (b) (4) ORDERS. IT MODIFIES THE CONTRACTIONER NO. AS DESCRIBED IN ITEM 14. WITHE CHANCES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT FLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office.) IT TO AUTHORITY OF
The above in Offers must stems 8 and separate left THE PLACE virtue of this to the solicitization of the Country of the Countr	numbered solicitation is amended at set if acknowledge receipt of this amendment; 15, and returning content to telegram which includes a reference DESIGNATED FOR THE RECEIPT OF amendment you desire to change an off ation and this amendment, and is received thing AND APPROPRIATION DATA (if received to the content of the	11. THIS ITEM ONLY APPLIE FORTH In them 14. The hour and distern to the hour and date speculied optes of the amendment, (b) By ack to the solicitation and amendment of FERS PRIOR TO THE HOUR? It is already submitted, such change ad prior to the opening hour and date required. MODIFICATION OF CONTRACTS/(C) PURSUANT TO: (Specify authority) ACTION DER IS MODIFIED TO REITH AN ITEM 14, PURSUANT TO THE HOUR IS ENTERED INTO PURSUAN IN and authority) 2-232-77, Limitabion 0	ESTO AMENDMENTS OF SOLICITATIONS Is pecified for receipt of Offers In the solicitation or as an anded, by one of the following methods: (a) By completing the time solicitation or as an anded, by one of the following methods: (a) By completing with methods for the offer submitted; or (c) By the methods. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by may be made by telegram or letter, provided each telegram or letter makes reference to specified. Net Increase: (b) (4) ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14. BY THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT FLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, the AUTHORITY OF FAR 43.103(b).
The above in Offers must stems 8 and separate left THE PLACE witure of this to the sociotal Caccount See School Check of the See School Check of the See School Check of the See School Check of the See School Check of the See School Check of the See School Check of the See School Check of the See School Check of the See School Check of the See School Check of the See School Check of the See School Check of the See School Check of the See School Check of the See School Check of the See School Check of the See See School Check of the See See See See See See See See See S	inhibered solicitation is emended at set if acknowledge receipt of this amendment; 15, and returning content to telegram which includes a reference DESIGNATED FOR THE RECEIPT OF amendment you desire to change an official and this emendment, and is received into and this emendment, and is received to the country appropriation DATA (if received in the country appropriation of the country appropriation of the country appropriation date, etc.) SET FORT C. THIS SUPPLEMENTAL AGREEMED. UTHER (Specify type of medification Clause 11.A.2., ITES 1552	11. THIS YEM ONLY APPLIE FORTH In flem 14. The hour and date prior to the hour and date speculied specs of the amendment, (b) By ack to the solicitation and amendmen OFFERS PRIOR TO THE HOUR? The already submitted, such change ad prior to the opening hour and date required) MODIFICATION OF CONTRACTS/(C) PURSUANT TO: (Specify authority) ACT/ORDER IS MODIFIED TO REI THIN STEM 14, PURSUANT TO THE INT IS ENTERED INTO PURSUAN OR and authority) 2-232-77, Limitablich of Interpolated to sign this docum	ESTO AMENDMENTS OF SOLICITATIONS Is pecified for receipt of Offers In the solicitation or as an anded, by one of the following methods: (a) By completing knowledging receipt of this smendment on each copy of the offer submitted; of (c) By an aumbors. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by may be made by telegram or letter, provided each telegram or letter makes reference to specified. Net Increase: (b) (4) ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14. BY THE CHARGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT FLECT THE ADMINISTRATIVE CHARGES (such as changes in paying office, HE AUTHORITY OF FAR 43.103(b).

Except as required harring a terms and conditions of the doct	ument referenced in Item 9A or 10	A, as heretofore changed, remains unchanged and in full force and	d effect.
15A. HAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type Eric Schell	or print)
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNATED STATES OF AMERICA	18C. DATE SIGNED
(Signature of pursua eath Fued to Fig.)		(Signature of Contracting Officer) STANDARD Greenwilled In	FORM 30 (REV. 10-83)

NSI¹/7540-01-152-0070 Previous edition unusable

Frescribed by GSA FAR (48 CFR) 53:243

The purpose of this modification is to:

- 1. Increase funding on this contract from (b) (4) to (b) (4)
- Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):
 - (a) Of the total price of CLINs 0001 through 0004, the sum of presently available for payment and allotted to this contract.
 - (c)(1) It is contemplated that funds presently allotted to this contract will cover work to be performed until (b) (4)
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

II.A.2 NFS 1852,232-77 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (MAR 1989)

- (a) Of the total price of CLINs 0001 through 0004, the sum of 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 as required by the payment schedule in Clause II.A.6, until the total price of said CLINs is allotted.
- (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 Section II, Clause 52.212-4(1), Termination for the Government's Convenience, of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(1) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1. 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 contract Section II, Clause 52.212-4(1) notwithstanding.
- (c) Reserved.
 - (1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
 - (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 sixty (60) days the work will reach a point at which, if the contract is terminated pursuant to contract Section II, Clause 52.212-4(I) of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(I) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1.
 - (3) Reserved.
 - (i) The notice shall state the estimate when the point referred to in paragraph I(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, sixty (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 contract Section II, Clause 52.212-4(1).
- (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(s) (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 Termination for Cause 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 contract Section II, Clause 52.212-4(1).

(End of clause)

2. AMENDMEN 000029 6. ISSUED BY			- 1		1	1 5
	TIMODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITE	ONPURCHASE REG. NO.	5. PRO.	JECT NO. (If applicable)
	25/8	See Block 16C	4260403	411		
		CODE JSC	7. ADMINIST	ERED BY (if other than lie.	n 6) COCE	JSC
Actn: EC	nnson Space Conte 3 / Sharan D. Los SA Farkway TX 77056-3696		Attn: E 2101 NA	ohnson Space C GG / Sheran D. ISA Parkway A TK 77052-369	Lofton	
NAME AND	ADDRESS OF CONTRACTOR (II	to, street, county, State and Zir Code)	(x) 9A. AMEN	IDMENT OF SOLICITATIO	N NO	
PACEX						
ROCKET	RD		9E. DATE	D (SEE ITEM 11)		
AWTHORN	E CA 90250					
			x 10A MOD NNJ69	IFICATION OF CONTRAC GAO . B	T/ORDER NO.	
			100 DAT	ED (SEE ITEM 13)		1300
CODE SET		FACILITY CODE	— I IOB. DATI	LANCE HEM 13)	r	
3E1	Are		12	1-51-4008	<u> </u>	
		11. THIS ITEM ONLY APPLIES as set forth in Item 14. The hour and date s			· is extended,	
e Scho			Net Increas		(b	
	13. THIS ITEM ONLY APPLIE	S TO MODIFICATION OF CONTRACTS/OF	RDERS. IT MODIFIE:	S THE CONTRACT/ORDER	NO. AS DESCRIBED	IN ITEM 14.
CHECK ONE		SUED PURSUANT TO: (Specify authority) ONTRACT/ORDER IS MODIFIED TO REFLE FORTH IN ITEM 14, PLRSUANT TO THE				
	C. THIS SUPPLEMENTAL AGR	EEMENT IS ENTERED INTO PURSUALIT	TO AUTHORITY OF			
	D. OTHER (Specify type of modi		active contract as			
X	Clause II.A.G., NYS	1057-231-77, Limitation or	Funds (Fixed	-Price Contract)	(Mir 1989)	
- 1	f: Contractor X is	not. [] is required to sign this documen	rt and return	O copies :	the issuing office.	
. IMPORTANT		ATION (Organized by UCF section heading	rs, including solicitați		300000000000000000000000000000000000000	
E. IMPORTANI 14. DESCRIPT Gee Cont	inuation Page					
E. IMPORTANT 14. DESCRIPT Gee Cont	inuation Page	ens of the document referenced in Item 9A o	er 10A, as heretofore		ud and in full force an	
E. IMPORTANT 14. DESCRIPT See Conti	inuation Paga	ens of the document referenced in Item 9A o	or 10A, as heretofore	changed, remains unchang	ud and in full force an	
Except as provide. NAME AN	inuation Page	ons of the document referenced in Item 9A o	or 10A, as heretofore	changed, remains unchang	ud and in full force an	or print)

NSN 7540-01-152-8070 Previous edition ununable STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 63,243

The purpose of this modification is to:

- 1. Increase funding on this contract from (b) (4) to (b) (4)
- Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):
 - (a) Of the total price of CLINs 0001 through 0004, the sum of presently available for payment and allotted to this contract.
 - (c)(1) It is contemplated that funds presently allotted to this contract will cover work to be performed until (b) (4)
- 3. Revise Attachment V.M., of the conformed contract to display the most current list of Task Orders issued to date under CLIN 0003.
- 4. Replacement pages are provided herein.
- 5. All other terms and conditions remain unchanged and in full force and effect.

II.A.2 NFS 1852.232-77 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (MAR 1989)

- (a) Of the total price of CLINs 0001 through 0004, the sum of 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 as required by the payment schedule in Clause II.A.6, until the total price of said CLINs is allotted.
- (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 Section II, Clause 52.212-4(l), Termination for the Government's Convenience, of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1. 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 contract Section II, Clause 52.212-4(l) notwithstanding.
- (c) Reserved.
 - (1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
 - (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 sixty (60) days the work will reach a point at which, if the contract is terminated pursuant to contract Section II, Clause 52.212-4(I) of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(I) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1.
 - (3) Reserved.
 - (i) The notice shall state the estimate when the point referred to in paragraph I(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, sixty (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 contract Section II. Clause 52.212-4(1).
- (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(s) (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 Termination for Cause 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 contract Section II, Clause 52.212-4(1).

(End of clause)

ATTACHMENT V.M.

SPECIAL TASK ASSIGNMENTS AND STUDIES SUB-CLIN SCHEDULE FOR CLIN 003

This Sub-CLIN Schedule provides contract details for task orders issued under CLIN 0003.

SUB- CLIN	TASK ORDER	REVISION	DATE	DESCRIPTION PRICE
0003AA	2	BASIC	4/20/2009	
0003AB	3	BASIC	12/24/2009	
0003AB	3	Α	1/13/2010	(b) (4)
0003AB	3	В	4/07/2010	
0003AB	3	С	6/29/2010	
0003AC	4	BASIC	1/25/2010	
0003AC	4	A	6/02/2010	
0003AC	6	BASIC	09/27/2010	
0003AC	7	BASIC	03/22/2011	
0003AC	8	BASIC	06/17/2011	
0003AC	9	BASIC	07/21/2011	
				тота L (b) (4)

	ACTGARDADA SECTIONA	energia de la composición dela composición de la composición de la composición de la composición dela composición dela composición dela composición de la composición dela composición de la composición dela composición dela compo	1. CONTRACT ID CODE	PAGE	F PAGES
MENDMENT OF SOLICITATION/MODIFIC	CATION OF CONT	RACT	The second secon	1	4 anniversal
	13. EFFECTIVE DAT	E 4. RE	QUISITION/PURCHASE REQ. NO.	5. PROJECT N	O. (If applicable)
AMENDMENT/MODIFICATION NO.	Sec Block	4201	0406037	CODE JSC	
000030 CODE		7. AL	MINISTERED BY (If other than item 5)	000	
ASA/Johnson Space Center ASA/Johnson Space Center Attn: BG / Sharan D. Lofton 101 NASA Parkway Jouston TX 77058-3596		Att	A/Johnson Space Cent In: BG / Sharan D. Lo DI NASA Parkway Iston TX 77058-3696	eer ofton	88
			A. AMENDMENT OF SOLICITATION NO	o.	
8. NAME AND ADDRESS OF CONTRACTOR (No., 4)	eet, county, State and 21P	Code) (X)			
SPACEX		1 1	B. DATED (SEE ITEM 11)		
ROCKET RD					35-3600 - 3000 <u>- 3000</u>
AWTHORNE CA 90250		[^]	OA MODIFICATION OF CONTRACT/O NNJO9GAO4B IOB DATED (SEE ITEM 13)	RDER NO.	
			IDEL DATED (SEE FICH 19)		
CODE 3BVL8	FACILITY CODE		13/23/2008		
The above numbered solicitation is amended as a Offers must acknowledge receipt of this amendme			DIMENTS OF SOLICITATIONS	is extended. Lis n	ot extended.
CHECK ONE A THIS CHANGE ORDER IS ISSU	ED PURSUANT TO: (S	specify authority) THE CH	T MODIFIES THE CONTRACT/ORDER N ANGES SET FORTH IN ITEM 14 ARE N	MADE IN THE CONTRA	CT
B. THE ABOVE NUMBERED CON appropriation date, etc.) SET For	TRACT/ORDER IS MO ORTH IN ITEM 14, PUR	OIFIED TO REFLECT THE ISUANT TO THE AUTHOR	ADMINISTRATIVE CHANGES (SUCT A		
C. THIS SUPPLEMENTAL AGREE	MENT IS ENTERED IN	TO BORSONI TO YOU	ann or.		
D. OTHER (Specify type of modific	affor and authority)	irarion of Funds	(Fixed-Price Contract)	(Mar 1989)	
		algn this document and re	turn 0 copies to	the issuing office.	
E. IMPORTANT: Contractor X is a 14. DESCRIPTION OF AMENDMENT/MODIFICA	tot, Gis required to	G nection headings inclu	ling splicitetion/contract subject matter i	where feasible.)	
See continuation page					
Except as provided herein, all terms and conditions.	ns of the document refe	arenced in Item 9A or 10A.	as heretofore changed, remains uncher 16A, NAME AND TITLE OF CONTRA	nged and in full force and CTING OFFICER (7) pe	s effect. or print)
VIII THE PROPERTY OF THE PROPE			Sharan D. Li	011017	16C, DATE SIGNED
158. CONTRACTOR/OFFEROR		15C. DATE SIGNED	18B. UNITED STATES OF AMERICA	Illon	08/24/2011
			(Sign ware of Contracting	G(Boer)	FORM 30 (REV. 10-83)

(Dignature of parson authorized to sign)
NSN 7540-01-152-8070
Provious action unusable

STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243 The purpose of this modification is to:

- 1. Increase funding on this contract from (b) (4) to
- Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):
 - (a) Of the total price of CLINs 0001 through 0004, the sum of presently available for payment and allotted to this contract.
 - (c)(1) It is contemplated that funds presently allotted to this contract will cover work to be performed until (b) (4)
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

II.A.2 NFS 1852.232-77 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (MAR 1989)

- (a) Of the total price of CLINs 0001 through 0004, the sum of 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 as required by the payment schedule in Clause II.A.6, until the total price of said CLINs is allotted.
- (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 Section II, Clause 52.212-4(1), Termination for the Government's Convenience, of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(1) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1. 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 contract Section II, Clause 52.212-4(1) notwithstanding.
- (c) Reserved.
 - (1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
 - (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 sixty (60) days the work will reach a point at which, if the contract is terminated pursuant to contract Section II, Clause 52.212-4(l) of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1.
 - (3) Reserved.
 - (i) The notice shall state the estimate when the point referred to in paragraph I(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, sixty (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 contract Section II, Clause 52.212-4(1).

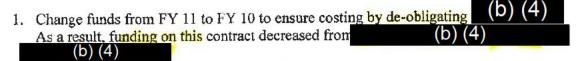
- (d) When additional funds are allotted from time to time for continued performance of the work under this contract, the parties shall agree on the applicable period of contract performance to be covered by these funds. The provisions of paragraphs (b) and (c) of this clause shall apply to these additional 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(s) (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 Termination for Cause 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 contract Section II, Clause 52.212-4(l).

(End of clause)

AMENDMENT OF SOLICITATION	MODIFICATION OF CO	INTRACT	1. CONTRACT ID CODE	PAGE OF PAGES
	3. EFFECTIVE	Control of the Contro	EQUISITION/PURCHASE REQ. NO	5. PROJECT NO. (If applicable)
2. AMENDMENT/MODIFICATION NO			2000 TO WISH SHOW	
00030A 6. ISSUED BY	COOE JSC	7.7	DMINISTERED BY (If other than item 6)	CODE JSC
NASA/Johnson Space Cen Attn: BG / Sharan D. L 2101 NASA Parkway Houston TX 77058-3696	ter	At 21	SA/Johnson Space Cent thn: BG / Sharan D. Lo .01 NASA Parkway ouston TX 77058-3696	er
3. NAME AND ADDRESS OF CONTRACTO	R (No., street, county, State and	ZIP Coda) (x)	9A. AMENDMENT OF SOLICITATION NO	
SPACEX ROCKET RD MAWTHORNE CA 30250			90. DATED (SEE ITEM 11)	
HAWTHORNE CA 30:30		x	10A. MODIFICATION OF CONTRACT/OF NNJ09GA04B	RDER NO.
CODE 3BVL8	FACILITY COD	E	108. DATED (SEE ITEM 13)	
J	11. THIS ITE	MONLY APPLIES TO AME	IDMENTS OF SOLICITATIONS	
CHECK ONE A. THIS CHANGE ORDER TO ORDER HO. IN ITEM TO	S ISSUED PURSUANT TO:	(Specify authority) THE CH	T MODIFIES THE CONTRACT/ORDER NO ANGED SET FORTH IN ITEM 14 ARE MA ADMINISTRATIVE CHANGES (SUCT AS C BITT OF FAR 43 1034)	DE IN THE CONTRACT
C THIS SUPPLEMENTAL				
D. OTHER (Specify type of	monication and authority			
		mitation of Funds	(Fixed-Frice Contract) (Ma	ar 1985)
E. IMPORTANT: Contractor		o sign this document and ret		e issulng office.
14 DESCRIPTION OF AMENDMENTMOD Change funds from FY11	DIFICATION (Organized by U	CF section headings, include sure costing,	ing solicitation/contract subject matter whe See continuation pg.	re (eas/ble)
Except as provided harein, all terms and co	anditions of the document refu	sienced in item 9A or 10A, s	s heretofore changed, remains unchanged	and in full force and effect.
15A. NAME AND TITLE OF SIGNER (Type		1	Source (). We	IG OFFICER (Typs or print)
15B. CONTRACTOR/OFFEROR	and the second	15C, DATE SIGNEO 1	GB. UNITED STATES OF AMERICA	08/24/201
(Signature of person authorized to	o ang ()			Z -TANDARD CORM 30 (REV. 10-83)

NSN 7540-01-152-8070 Previous edition unusable STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

The purpose of this modification is to:



- 2. Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):
 - (a) Of the total price of CLINs 0001 through 0004, the sum of presently available for payment and allotted to this contract.
 - (c)(1) It is contemplated that funds presently allotted to this contract will cover work to be performed until (b) (4)
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

II.A.2 NFS 1852.232-77 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (MAR 1989)

- (a) Of the total price of CLINs 0001 through 0004, the sum (b) (4) 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 as required by the payment schedule in Clause II.A.6, until the total price of said CLINs is allotted.
- (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 Section II, Clause 52.212-4(I), Termination for the Government's Convenience, of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(I) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1. 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 contract Section II, Clause 52.212-4(I) notwithstanding.
- (c) Reserved.
 - (1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
 - (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 sixty (60) days the work will reach a point at which, if the contract is terminated pursuant to contract Section II, Clause 52.212-4(l) of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1.
 - (3) Reserved.
 - (i) The notice shall state the estimate when the point referred to in paragraph I(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, sixty (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 contract Section II, Clause 52.212-4(1).

- (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(s) (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 Termination for Cause 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 contract Section II, Clause 52.212-4(l).

(End of clause)

	IFICATION OF CONTRACT		1. CONTRACT ID CODE		F PAGES
AMENDMENT/MODIFICATION NO.	13 EFFECTIVE DATE	4. REO	UISITION/PURCHASE REQ. I+O.	5. PROJECT N	O. (if applicable)
	**************************************	1,000,000,000	409395	1	
000031 LISSUED BY C	See Block 16C	7. ADI	MINISTERED BY (If other than Item 6)	CODE JSC	
NASA/Johnson Space Center Attn: BG / Sharan D. Loft PLO1 NASA Parkway Nouston TX 77058-3696		Att:	A/Johnson Space Centen: BG / Sharan D. Lof I NASA Parkway Ston TX 77058-3696	r ton	
B. NAME AND ADDRESS OF CONTRACTOR (No.	, street, sounty, State and ZIP Code)	(x) ^{9A} .	AMENDMENT OF SOLICITATION NO.		
SPACEX ROCKET RD HAWTHORNE CA 90250		9B.	DATED (SEE ITEM 11)		
MALIOUSE CH 20520		X NN	. MODIFICATION OF CONTRACT/ORDE IJO 9GAO 4 B I. DATED (SEE ITEM 13)	R NO.	
CODE 3BVL8	FACILITY CODE		12/23/2008		
	11, THIS ITEM ONLY APPLIES Y				
CHECK ONE A. THIS CHANGE ORDER IS ISSU	UED PURSUANT TO: (Specify authority)	THE CHANG		N THE CONTRACT	
	ITRACT/ORDER IS MODIFIED TO REFLE ORTH IN ITEM 14, PURSUANT TO THE A	CT THE AD	MINISTRATIVE CHANGES (such as chan OF FAR 43.103(b).	ges in paying office,	
B. THE ABOVE NUMBERED CON appropriation date, etc.) SET F	ITRACT/ORDER IS MODIFIED TO REFLE ORTH IN ITEM 14, PURSUANT TO THE A EMENT IS ENTERED INTO PURSUANT TO			ges in paying office,	
B. THE ABOVE NUMBERED CON appropriation date, etc.) SET F	EMENT IS ENTERED INTO PURSUANT T			ges in paying office,	
B. THE ABOVE NUMBERED CON appropriation date, etc.) SET F C. THIS SUPPLEMENTAL AGREE O. OTHER (Specify type of modific	EMENT IS ENTERED INTO PURSUANT T	O AUTHORI	TV OF:		
B. THE ABOVE NUMBERED CON appropriation date, etc.) SET F C. THIS SUPPLEMENTAL AGREE O. OTHER (Specify type of modific Y. Clause II.A.2., NFS 1/2 E. IMPORTANT: Contractor Alian	ment is entered into pursuant to ration and authority) 852-231-77, Limitation of a rot, Tie required to sign this document	INDITUR O Funda (F	i::ed-Price Contract) (Mar O copies to the Is:	1989) suling office.	
B. THE ABOVE NUMBERED CON appropriation date, etc.) SET F C. THIS SUPPLEMENTAL AGREE O. OTHER (Specify type of modific Y. Clause II.A.2., NFS 1: E. IMPORTANT: Contractor Alian 14. DESCRIPTION OF AMENDMENT/MODIFICAT	ment is entered into pursuant to ration and authority) 852-231-77, Limitation of a rot, Tie required to sign this document	INDITUR O Funda (F	i::ed-Price Contract) (Mar O copies to the Is:	1989) suling office.	
B. THE ABOVE NUMBERED CON appropriation date, etc.) SET F C. THIS SUPPLEMENTAL AGREE O. OTHER (Specify type of modific X Clause II.A.2 NFS 1: E. IMPORTANT: Contractor Alian 14. DESCRIPTION OF AMENDMENT/MODIFICAT See continuation page Except as provided herein, all terms and conditions	EMENT IS ENTERED INTO PURSUANT TO callon and authority) 852-232-77, Limitation of its comment in the document referenced in Item 9A or	Funds (F	i:sed-Price Contract) (Mar O copies to the is: oliciation/contract subject metter where fi	1989) suling office. astities)	0
B. THE ABOVE NUMBERED CON appropriation date, etc.) SET F C. THIS SUPPLEMENTAL AGREE O. OTHER (Specify type of modific X Clause II.A.2., NFS 1: E. IMPORTANT: Contractor Alian 14. DESCRIPTION OF AMENDMENT/MODIFICAT See continuation page Except as provided herein, all terms and conditions 15A. NAME AND TITLE OF SIGNER (Type or print)	EMENT IS ENTERED INTO PURSUANT To call on and authority) 852-232-77, Limitation of it not. The required to sign this document TION (Organized by UCF section headings) s of the document referenced in Item 9A or	Funds (F	itsed-Price Contract) (Mar O copies to the ist conclusion/contract subject matter where in stotore changed, remains unchanged and IAME AND TITLE OF CONTRACTING O	1969) suling office. setible.) in full force and effect	
B. THE ABOVE NUMBERED CON appropriation date, etc.) SET F C. THIS SUPPLEMENTAL AGREE O. OTHER (Specify type of modific X Clause II.A.2 NFS 1: E. IMPORTANT: Contractor Alian 14. DESCRIPTION OF AMENDMENT/MODIFICAT See continuation page Except as provided herein, all terms and conditions	EMENT IS ENTERED INTO PURSUANT TO callon and authority) 852-232-77, Limitation of its comment in the document referenced in Item 9A or	Funds (F	itsed-Price Contract) (Mar O copies to the ist officially of the interview	1989) sulng office. estitie.) in full force and effect FFICER (Type or prin	C. DATE SIGNED

NSN 7540-01-152-8070 Previous adition unusable STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243 The purpose of this modification is to:



- 2. Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):
 - (a) Of the total price of CLINs 0001 through 0004, the sum of presently available for payment and allotted to this contract.
 - (c)(1) It is contemplated that funds presently allotted to this contract will cover work to be performed until (b) (4)
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

II.A.2 NFS 1852.232-77 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (MAR 1989)

- (a) Of the total price of CLINs 0001 through 0004, the sum of 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 as required by the payment schedule in Clause II.A.6, until the total price of said CLINs is allotted.
- (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 Section II, Clause 52.212-4(l), Termination for the Government's Convenience, of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1. 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 contract Section II, Clause 52.212-4(l) notwithstanding.
- (c) Reserved.
 - (1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
 - (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 sixty (60) days the work will reach a point at which, if the contract is terminated pursuant to contract Section II, Clause 52.212-4(l) of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1.
 - (3) Reserved.
 - (i) The notice shall state the estimate when the point referred to in paragraph I(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, sixty (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 contract Section II, Clause 52.212-4(1).
- (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(s) (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 Termination for Cause 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 contract Section II, Clause 52.212-4(l).

(End of clause)

AMENDMENT OF SOLICITATION/MODIFIC	ATION OF CONTRACT	1. CONTRACT ID CODE	PAGE OF PAGES
2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
00032	See Block 16C	4200418557	
. ISSUED BY CODE	JSC	7. ADMINISTERED BY (If other than Item 6)	CODE JSC
NASA/Johnson Space Center Attn: BG / Sharan D. Lofton 2101 NASA Parkway Houston TX 77058-3696		NASA/Johnson Space Center Attn: BG / Sharan D. Lofton 2101 NASA Parkway Houston TX 77058-3696	
B. NAME AND ADDRESS OF CONTRACTOR (No., stree	t, county, State and ZIP Code)	(x) 9A. AMENDMENT OF SOLICITATION NO.	- 10 - 10 - 10 - 10 - 10 - 10 - 10 - 10
PACEX			
ROCKET RD		98. DATED (SEE ITEM 11)	
AWTHORNE CA 90250		1	
		10A. MODIFICATION OF CONTRACT/ORDER	NO.
		× NNJ09GA04B	
0007	FACILITY CODE	10B. DATED (SEE ITEM 13)	
CODE 3BVL8	- ANS WALL 1994	12/23/2008 AMENDMENTS OF SOLICITATIONS	
separate letter or telegram which includes a reference THE PLACE DESIGNATED FOR THE RECEIPT OF virtue of this amendment you desire to chance an off	pies of the emendment; (b) By acknowle e to the solicitation and amendment num OFFERS PRIOR TO THE HOUR AND I er already submitted, such change may i	adging receipt of this amendment on each copy of the ibers. FAILURE OF YOUR ACKNOWLEDGEMENT ^{TI} DATE SPECIFIED MAY RESULT IN REJECTION OF be made by telegram or letter, provided each telegram	offer submitted; or (c) by FO BE RECEIVED AT YOUR OFFER. If by
to the solicitation and this amendment, and is receive	d prior to the opening hour and date spe	scriled.	
12. ACCOUNTING AND APPROPRIATION DATA (If re See Schedule	quirea) Ne	t Increase:	(b) (4)
13. THIS ITEM ONLY APPLIES TO	MODIFICATION OF CONTRACTS/ORDE	RS. IT MODIFIES THE CONTRACT/ORDER NO. AS	DESCRIBED IN ITEM 14.
S = 5339 \$35.53 \$			<u> </u>
A. THIS CHANGE ORDER IS ISSUED ORDER NO. IN ITEM 10A.	PURSUANT TO: (Specify authority) TH	IE CHANGES SET FORTH IN ITEM 14 ARE MADE IN	1 THE CONTRACT
B. THE ABOVE NUMBERED CONTRA appropriation date, etc.) SET FORT	CT/ORDER IS MODIFIED TO REFLECT H IN ITEM 14, PURSUANT TO THE AU	T THE ADMINISTRATIVE CHANGES (such as chang THORITY OF FAR 43.103(b).	es in paying office,
C. THIS SUPPLEMENTAL AGREEME	NT IS ENTERED INTO PURSUANT TO	AUTHORITY OF:	954 95
D. OTHER (Specify type of modification		<u> </u>	
X Clause II.A.2., NFS 1852	-232-77, Limitation of Fr	unds (Fixed-Price Contract) (Mar :	1989)
E. IMPORTANT: Contractor X is not.	is required to sign this document a	and return 0 copies to the iss	uing office,
14 DESCRIPTION OF AMENDMENT/MODIFICATION See continuation page	(Organización de la company)		
	the design of released to the 64	the se harehring channel complex unchanned and	in full force and effect.
Except as provided herein, all terms and conditions of 15A, NAME AND TITLE OF SIGNER (Type or print)	the document referenced in Item 8A or	16A. NAME AND TITLE OF CONTRACTING O	FFICER (Type or print)
THE THOUGHT (Type or plant)		Sharan D. Lofton	20.550 St 850
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
		Shaian O. Styron	12/12/2011
(Signature of person euthorized to sign)		(Signature of Contracting Officer)	STANDARD FORM 30 (REV. 10-83)
NSN 7540-01-152-8070 Previous edition unusable		8	Prescribed by GSA

Prescribed by GSA FAR (48 CFR) 53,243

The purpose of this modification is to:

- 1. Increase funds on this contract from (b) (4) to
- 2. Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):
 - (a) Of the total price of CLINs 0001 through 0004, the sum of presently available for payment and allotted to this contract.
 - (c)(1) It is contemplated that funds presently allotted to this contract will cover work to be performed until (b) (4)
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

II.A.2 NFS 1852.232-77 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (MAR 1989)

- (a) Of the total price of CLINs 0001 through 0004, the sum of 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 as required by the payment schedule in Clause II.A.6, until the total price of said CLINs is allotted.
- (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 Section II, Clause 52.212-4(l), Termination for the Government's Convenience, of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1. 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 contract Section II, Clause 52.212-4(l) notwithstanding.
- (c) Reserved.
 - (1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
 - (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 sixty (60) days the work will reach a point at which, if the contract is terminated pursuant to contract Section II, Clause 52.212-4(l) of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1.
 - (3) Reserved.
 - (i) The notice shall state the estimate when the point referred to in paragraph I(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, sixty (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 contract Section II, Clause 52.212-4(1).

- (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(s) (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 Termination for Cause 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 contract Section II, Clause 52.212-4(l).

(End of clause)

MENDMENT OF SOLICITATIO	NYMODIFICATION OF	CONTRACT	1. CONTRACT ID CODE		PAGE OF PAGES
AMENDMENT/MODIFICATION NO.	S. EFFECTIV	VE DATE	4. REQUISITION/PURCHASE REQ	. NO.	8. PROJECT NO. (If applicable)
00033		ock 16C			
18SUED 8Y	CODE JSC	OOK 100	7. ADMINISTERED BY (If other tha	in (lem 6)	CODE JSC
RASA/Johnson Space Co attn: BG / Eric Schel 101 NASA Parkway Louston TX 77058-3690	Ll		NASA/Johnson Space Attn: BG / Sharan 2101 NASA Parkway Houston TX 77058-:	D. Loftor	n.
NAME AND ADDRESS OF CONTRAC	TOR (No., street, county, Store o	epd Z/P Gode)	BA. AMENDMENT OF SOLICIT	ATION NO.	
PACEX ROCKET RD AWTHORNE CA 90250			9B. DATED (SEE ITEM 11)		
			X NODIFICATION OF CONT NNJ09GA04B	TRACTIORDER N	0.
			108. DATED (SEE ITEM 13)		
OUE 3BAL'8	FACILITY		12/23/200	98	
38470	11, (A)5	ITEM ONLY APPLIES TO A	12/23/200 MENOMENTS OF SOLICITATIONS		nded. [ils not extended.
38470	11. (HIS sended as an forth in term 14 sentendment prior to the hos copies of the au des a reference to the solidis RECEIPT OF OPERS PRI thance an offer already sub-	ITEM ONLY APPLIES TO A The hour and date specific ur and date specified in the rendment; (b) By schnowled alton and amendment numb CR TO THE HOUR AND D/ mitted, such change may be	HENCHETTS OF SCLIGITATIONS AND THE STREET OF SCLIGITATIONS AND THE STREET OF SCLIGITATIONS AND THE STREET OF SCRIPT OF SCRIPT MAKE SPECIFIED MAY RESULT IN A made by talegreen or letter, provide	The following median copy of the officers to the officers of the officers of YOUR OF YOUR DESIGNATION OF Y	heds: (a) By completing for extendited; or (c) By BE RECEIVED AT OUR OFFER, If by
The above numbered solicitation is an Offere must acknowledge receipt of the liters 8 and 15, and returning separate letter or telegrary which incluring PLACE DESIGNATED FOR THE vidual of this extendence, you desire to to the solicitation and this amendment. 2. ACCOUNTING AND APPROPRIATE	11. '(HIS' sended as an forth in ham 14 sendendment prior to the hot copies of the an des a roterance to the solicit RECEIPT OF OFFERS PRI training an offer already sub, and is received prior to the s	ITEM ONLY APPLIES TO A The hour and date specific ur and date specified in the rendment; (b) By schnowled alton and amendment numb CR TO THE HOUR AND D/ mitted, such change may be	HENCHETTS OF SCLIGITATIONS AND THE STREET OF SCLIGITATIONS AND THE STREET OF SCLIGITATIONS AND THE STREET OF SCRIPT OF SCRIPT MAKE SPECIFIED MAY RESULT IN A made by talegreen or letter, provide	The following median copy of the officers to the officers of the officers of YOUR OF YOUR DESIGNATION OF Y	heds: (a) By completing for extendited; or (c) By BE RECEIVED AT OUR OFFER, If by
The above numbered solicitation is am Offers must acknowledge receipt of the liens B and 15, and returning separate letter or belograte which includes the DESIGNATURE PRO THE Vidua of this detendment you desire to to the solicitation and this amendment, it was considered to the SCOUNTING AND APPROPRIATE See Schedule	11. (FIE) sended as at forth in Rem 14 is amendment prior to the to copies of the arc des a reference to the solidis RECEIPT OF OFFERS PRI change an offer shready sub and is received prior to the s ON DATA (# required)	ITEM ONLY APPLIES TO A The hour and date specific ur and date specified in the ur and date specified in the unantment; (b) By acknowled ation and unandment numb OR TO THE HOUR AND DY mitted, such change may be opening hour and date speci	HENCHETTS OF SCLIGITATIONS AND THE STREET OF SCLIGITATIONS AND THE STREET OF SCLIGITATIONS AND THE STREET OF SCRIPT OF SCRIPT MAKE SPECIFIED MAY RESULT IN A made by talegreen or letter, provide	The following mell ach copy of the off LEDGEMENT TO KEJECTION OF YO deach telegram o	hocks: (a) By completing for extensitied; or (c) By BE RECEIVED AT DUR OFFER. If by r letter makes reference
The above numbered solicitation is am Offers must acknowledge receipt of thi liems 8 and 15, and returning separate letter or talegrate which includes the property of the state and the solicitation and this emendment is accounting AND APPROPRIATE See Schedule 13. THIS ITEM ONLY CHECK ONE A. THIS CHANGE ORDE CHECK ONE A. THIS CHANGE ORDE	11. '(HIS readed as act forth in hem 14 is entendment prior to the hose copies of the enders a reference to the solicit crange an offer strendy submitted and in received prior to the common of the c	ITEM ONLY APPLIES TO A The hour and date specific or and date specified in the mendment; (b) By schnowled attion and amandment numb- CR TO THE HOUR AND DY mitted, such change may be opening hour and date specific or CP CONTRACTS/ORDER TO: (Specify authority) THE	HENCHETTS OF SCLIGITATIONS and for receipt of Offers of Schildren or as amended, by one or ping receipt of this amendment on a six. Fallurae of Your Acknow the Specified MAY RESULT IN A made by talegram or letter, provide field. 8. IT MODIFIES THE CONTRACTION CHANGES SET FORTH IN ITEM 1	Lister following mediach copy of the officering the Landenhard Control of Your description of the Control of th	hocks: (a) By completing for extending or (c) By BERECELVED AT DUR OFFER. If by I letter makes reference ESCRISEO IN ITEM 14. THE CONTRACT
The above numbered solicitation is am Offere must acknowledge receipt of th liters 8 and 15, and returning separate letter or unlegrary which inclu- THE PLACE DESIGNATED FOR THE vidue of this determinant you desire to to the solicitation and this amendment, 12. ACCOUNTING AND APPROPRIATE See Schedule 13. THIS ITEM ONLY CRECKOME A. THIS CHANGE ORDS B. THE ABOVE NUMBE appropriation date, et	11. (HIS readed as at forth in Rem 14 is amendment prior to the hose copies of the arrivation of the a	ITEM ONLY APPLIES TO A The hour and date specific ur and date specified in the unandment; (b) By acknowled alties and amsoutment number OR TO THE HOUR AND DY mitted, such change may be opening hour and date specified in CF CONTRACTS/ORDER TO: (Specify authority) THE IS MODIFIED TO REFLECT PURSUANT TO THE AUTH	INCLUDE THE CONTRACTION IN TO SHARE THE CONTRACTION IN THE SPECIFIED MAY RESULT IN A made by telegram or letter, provide field. If MODIFIES THE CONTRACTION CHANGES SET FORTH IN ITEM 1 THE ADMINISTRATIVE CHANGES ORTHY OF FAR 43,103(b).	Lister following mediach copy of the officering the Landenhard Control of Your description of the Control of th	hocks: (a) By completing for extending or (c) By BERECELVED AT DUR OFFER. If by I letter makes reference ESCRISEO IN ITEM 14. THE CONTRACT
The above numbered solicitation is am Offere must acknowledge receipt of th liters 8 and 15, and returning separate letter or telegrary which inclu- THE PLACE DESIGNATED FOR THE vidue of 70 is detendantly you desire to to the solicitation and this entendment, 12. ACCOUNTING AND APPROPRIATE See Schedule 13. THIS ITEM CRLY CHECKOME A. THIS CHANGE ORDI ORGER NO. IN TIEM B. THE ABOVE NUMBE separation date, et C. THIS SUPPLEMENT. Clause XX.A.10:	11. (HIS sended as an forth in Rem 14 is amendment prior to the hose copies of the arrival and the sended in the s	ITEM ONLY APPLIES TO A In the hour and date specific or and date specified in the orientement, (b) By acknowled alties and amsoutment number of TO THE HOUR AND DY mitted, each change may be opening hour and date specific or CONTRACTS/ORDER TO: (Specify authority) THE OF MODIFIED TO REFLECT: PURSUANT TO THE AUTH OF INTO PURSUANT TO A inges — Fixed Prio	INCLUDE THE CONTRACTION IN TO SHARE THE CONTRACTION IN THE SPECIFIED MAY RESULT IN A made by telegram or letter, provide field. If MODIFIES THE CONTRACTION CHANGES SET FORTH IN ITEM 1 THE ADMINISTRATIVE CHANGES ORTHY OF FAR 43,103(b).	The following med ach copy of the off ach copy of the off EDECTION OF YOU described and beginn of the EDECTION OF YOU described and beginn of the EDECTION OF YOU described and the EDECTION OF YOU described and the EDECTION OF YOU described and the EDECTION OF THE EDECTI	hocks: (a) By completing for extending or (c) By BERECELVED AT DUR OFFER. If by or letter makes reference USCRIBED IN ITEM 14. THE CONTRACT In paying office,
The above numbered solicitation is am Offere must acknowledge receipt of th liters 8 and 15, and returning separate letter or telegrary which inclu- THE PLACE DESIGNATED FOR THE vidue of 70 is detendantly you desire to to the solicitation and this entendment, 12. ACCOUNTING AND APPROPRIATE See Schedule 13. THIS ITEM CRLY CHECKOME A. THIS CHANGE ORDI ORGER NO. IN TIEM B. THE ABOVE NUMBE separation date, et C. THIS SUPPLEMENT. Clause XX.A.10:	11. THIS sended as an forth in hem 14 is amendment prior to the hose copies of the an des a reference to the solidist RECEIPT OF OFFERS PRIOR and is received prior to the solid manage an offer strengly sub, and is received prior to the solid management of the solid mana	ITEM ONLY APPLIES TO A In the hour and date specific or and date specified in the orientement, (b) By acknowled alties and amsoutment number of TO THE HOUR AND DY mitted, each change may be opening hour and date specific or CONTRACTS/ORDER TO: (Specify authority) THE OF MODIFIED TO REFLECT: PURSUANT TO THE AUTH OF INTO PURSUANT TO A inges — Fixed Prio	MENOMENTS OF SCLIGITATIONS and for receipt of Offers of Schildren or as emended, by one or bing receipt of this amendment on a six. Failure of Your Acknown The Specified MAY RESULT IN A made by balegrem or letter, provide field. B. IT MODIFIES THE CONTRACTION CHANGES SET FORTH IN ITEM 1	The following med ach copy of the off ach copy of the off EDECTION OF YOU described and beginn of the EDECTION OF YOU described and beginn of the EDECTION OF YOU described and the EDECTION OF YOU described and the EDECTION OF YOU described and the EDECTION OF THE EDECTI	hocks: (a) By completing for extending or (c) By BERECELVED AT DUR OFFER. If by or letter makes reference USCRIBED IN ITEM 14. THE CONTRACT In paying office,

Except as provided herein, all terms and conditions of the docum	oni enformaced in Item SA or 10A.	as heretology changed, remains unchanged and in full force o	and effect.
16A, NAME AND TITLE OF SIGNER (Type or print)		18A. NAME AND TITLE OF CONTRACTING OFFICER (TY	pe or print)
Julie Jien Contracts (Office	Sharan D. Lofton	
15B. CONTRACTOR/OFFEROR		19B. UNITED STATES OF AMERICA	16C. DATE GIGNED
Signatura of person authorized to sign)	TO DEC 11	South O. Litter	12/20/2011
NSN 7540-01-152-8070		V STANDAS	RO FORM 30 (REV. 10-83)

Previous edition unusable

Prescribed by GSA FAR (48 GFR) 53.243

1. The purpose of this modification is to implement a Launch on Need (LON) capability in the event there's an interruption in the provision of cargo from any of the existing cargo providers, in accordance with ILA.10: FAR 52.543-1, Changes-Fixed Price (Deviation) (August 1987), Alternate II through the life of the contract for missions 2 through 12.

Attachment: Space Exploration Technologies proposal entitled, ISS Cargo Re-Supply Launch On Need Proposal, dated December 14, 2011.

2. This change provides the government with:

- a. An opportunity to increase program flexibility with no net additional cost.
- b. A cost effective way to manage the ISS's up and return cargo needs.
- c. Reduces risk associated with cargo re-supply missions.

These benefits are achieved with no additional cost risk to the government since milestone payments associated with LON will not be made until the NASA COTR has certified that the work required for that milestone has been completed.

3. The following technical capabilities shall be met:

- Next vehicle ready one month prior to launch of any planned vehicle
- LON launch can be two months after launch of planned vehicle
- Planned cargo for next launch as LON cargo
- Starts December 2011
- The manifest may consist of a full complement of pressurized cargo including standard powered payloads and standard late load for launch and return

4. Launch on Need Capability Readiness Milestones will be paid as specified in the following table:

Table 1: Launch on Need Capability Readiness Milestones Payment % Timing NASA Item Content & Data Deliverables SpX Requirements Description Deliverables (DRDs) ATP LON Capability **Final** Capability Deliverable

(b) (4)

- 6. Standard Mission Work Plans for impacted Missions will need to be revised to incorporate how SpaceX will meet the revisions to the statement of work (SOW) as outlined below.
- 7. Revise the contract statement of work (SOW) to add the following language:

Current Contract

2.1.1.2.1 VEHICLE BASELINE REVIEW

At not later than L-18 months, the Contractor shall allow NASA to participate in a Contractor review that establishes the integrated mission vehicle configuration (launch vehicle and orbital vehicle). The intent of the VBR is to establish the baseline vehicle for the mission and identify any design changes from the previous mission vehicle and the corresponding plans for executing and verifying these changes.

(A) MISSION BASELINE VEHICLE

The Contractor shall, at this review:

- Establish a baseline launch and orbital vehicle configuration so that subsequent mission integration efforts have definite launch and orbital environments and performance capabilities identified.
- b) With NASA approval, reconfirm the 90day delivery window.
- c) Provide the instrumentation plan as defined in the Vehicle IDD (DRD C3-1).

Modified Contract

2.1.1.2.1 VEHICLE BASELINE REVIEW

At not later than L-18 months, the Contractor shall allow NASA to participate in a Contractor review that establishes the integrated mission vehicle configuration (launch vehicle and orbital vehicle). The intent of the VBR is to establish the baseline vehicle for the mission and identify any design changes from the previous mission vehicle and the corresponding plans for executing and verifying these changes.

(A) MISSION BASELINE VEHICLE

The Contractor shall, at this review:

- a) Establish a baseline launch and orbital vehicle configuration so that subsequent mission integration efforts have definite launch and orbital environments and performance capabilities identified.
- b) With NASA approval, reconfirm the 90day delivery window.
- c) Provide the instrumentation plan as defined in the Vehicle IDD (DRD C3-1).
- d) Present a hardware development schedule that meets Launch on Need readiness criteria

2.1.1.2.2 MISSION INTEGRATION REVIEW

At not later than L-13 months, the Contractor shall allow NASA to participate in a review that provides NASA with a current mission integration status. NASA will utilize the information presented at this review to determine if the planned delivery date is achievable and if integration efforts should continue.

(A) MISSION BASELINE VEHICLE

The Contractor shall, at this review:

- a) Establish a 30 day window for cargo delivery to ISS.
- b) Provide updates to the instrumentation plan as defined in the Vehicle IDD (DRD C3-1).
- c) Provide initial data and parameters for Mission Success Determination.
- d) Present the external cargo carrier layout for approval by NASA, if applicable.

2.1.1.2.2 MISSION INTEGRATION REVIEW

At not later than L-13 months, the Contractor shall allow NASA to participate in a review that provides NASA with a current mission integration status. NASA will utilize the information presented at this review to determine if the planned delivery date is achievable and if integration efforts should continue.

(A) MISSION BASELINE VEHICLE

The Contractor shall, at this review:

- a) Establish a 30 day window for cargo delivery to ISS.
- b) Provide updates to the instrumentation plan as defined in the Vehicle IDD (DRD C3-1).
- Provide initial data and parameters for Mission Success Determination.
- d) Present the external cargo carrier layout for approval by NASA, if applicable.
- e) Present the status of hardware production according to LON schedule

2.1.1.2.3. CARGO INTEGRATION REVIEW

At not later than L-4 months, the
Contractor shall allow NASA to participate
in a review that allows NASA to assess if
the Contractor will be ready for NASA
cargo turnover at L-3 months. A status of
all open items presented in both the VBR
and MIR shall be presented at this review.
All mission unique design qualification and
acceptance testing, unless no-test factors
of safety are used, shall have been

2.1.1.2.3. CARGO INTEGRATION REVIEW

At not later than L-4 months, the
Contractor shall allow NASA to participate
in a review that allows NASA to assess if
the Contractor will be ready for NASA
cargo turnover at L-3 months. A status of
all open items presented in both the VBR
and MIR shall be presented at this review.
All mission unique design qualification and
acceptance testing, unless no-test factors
of safety are used, shall have been

accomplished. For open items, low schedule risk plans for completion shall be presented. All milestones to this point shall have been met.

The Contractor shall, at this review:

- At this review, the Contractor and NASA shall mutually agree on a delivery window of 14 days.
- b) Provide the final instrumentation plan as defined in the Vehicle IDD (DRD C3-1).
- c) Present evidence of verification closures for mission unique designs and requirements.
- d) Present evidence of verification closures for all open SSP 50808 requirements.
- e) Provide all analytical assessments that show the compatibility of NASA cargo with the launch and orbital vehicle such as integrated loads, Launch to Activation thermal assessments, electromagnetic interference (EMI), and power.
- f) Present evidence that all Safety
 Assessments have been approved by
 NASA.
- g) Provide final data and parameters for mission success determination.

accomplished. For open items, low schedule risk plans for completion shall be presented. All milestones to this point shall have been met.

The Contractor shall, at this review:

- At this review, the Contractor and NASA shall mutually agree on a delivery window of 14 days.
- b) Provide the final instrumentation plan
 as defined in the Vehicle IDD (DRD C3-1).
- c) Present evidence of verification closures for mission unique designs and requirements.
- d) Present evidence of verification closures for all open SSP 50808 requirements.
- e) Provide all analytical assessments that show the compatibility of NASA cargo with the launch and orbital vehicle such as integrated loads, Launch to Activation thermal assessments, electromagnetic interference (EMI), and power.
- f) Present evidence that all Safety
 Assessments have been approved by
 NASA.
- g) Provide final data and parameters for mission success determination.
- h) Provide status of the hardware production according to the LON schedule

- 8. This modification also revises clause II.A.31 entitled, Key Personnel and Facilities.
- 9. All other terms and conditions of NNJ09GA04B remain unchanged and in full

SPACEX

Space Exploration Technologies

ISS Cargo Re-Supply Launch On Need Proposal

December 14, 2011

Revision 1.0 Revision 1.1 December 14, 2011

Submitted by

Redact full Prof

Gwynne Shotwell, President

Ref: NASA Cargo Resupply Services (CRS) Contract NNJ09GA04B

For contractual matters, please contact: Julie Jiru

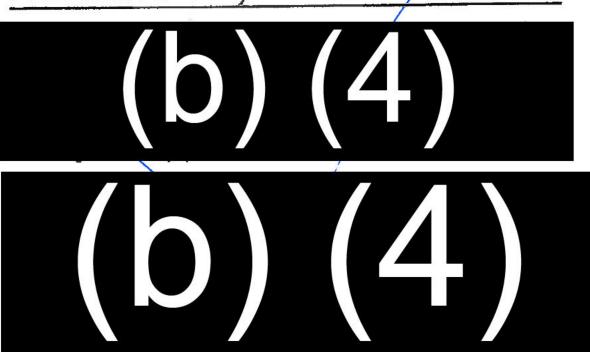
(b) (4)

For technical matters, pléase contact:

(b) (4)

X = Redact full page

Executive Summary



This proposal is compliant with the terms of CRS contract #NNJ09GA04B, the SOW, and the requirements of the Request for Proposal – International Space Station (ISS) Cargo Resupply Launch on Need (LON).

Introduction

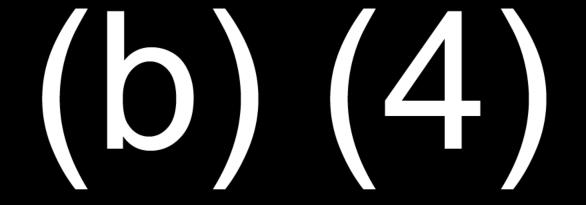


Ground Rules and Assumptions

(b) (4)

© Space Exploration Technologies Corp.

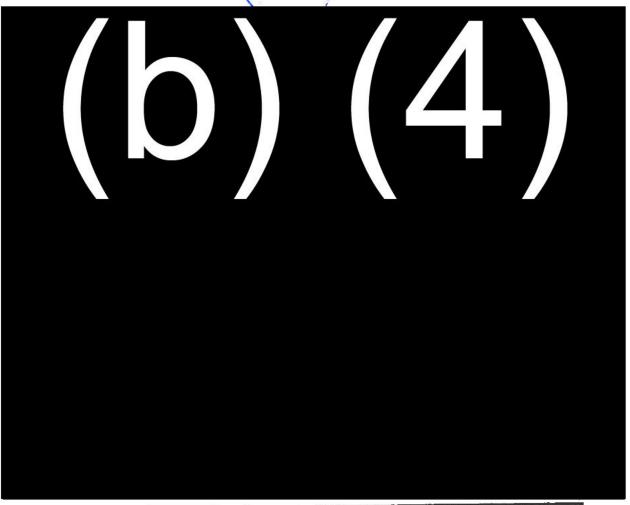
Proprietary and Competition Sensitive Information



Definitions

(b) (4)

Top Level Work Plan and Schedule



(b) (4)

Table 1: Launch on Need Capability Readiness Milestones (Top Level)

Item	Content and SpaceX Deliverables	Data Requirement Description (DRDs)	NASA Deliverables	Payment Percentage	Timing
Authorization to Proceed (ATP) LON Capability	(b) (4)			(b)	(4)
Final Capability Deliverable					

Table 2: Proposed Launch on Need Mission Execution Milestones

	Table 2: I	Proposed Launch on Need Mission E	xecution Milestones		
ltem	Content and SpaceX Deliverables	Data Requirement Description (DRDs)	NASA Deliverables	Payment Percentage	Timing
LON call-up	(b) (4)	C3-1 Vehicle Interface Definition Document (IDD) (if different for the LON mission) C3-3 Launch Vehicle Flight Software Input for IV&V Review (if different for the LON mission) C3-4 Launch Vehicle GNC Input for IV&V (if different for the LON mission) C3-5 Launch Vehicle Key Systems Qualification Data (if different for the LON mission) C4-1 Engineering CAD Models (if different for the LON mission)	(b) (4)		(b) (4
MIR Equivalent		MIR data as needed (if different for the LON mission)		0	

ltern	Content and SpaceX Deliverables	Data Requirement Description (DRDs)	NASA Deliverables	Payment Percentage	Timing
Cargo Integration Review (CIR)	Deliverables	C4-2/C6-1/C6-4 Mission Resource Allocation Document (MRAD) C5-1 Flight Products C5-2/C6-3 Integrated Cargo Phase III Hazard Report C4-4 Internal Cargo Interface Control Agreement (If needed)	Final mission success criteria and percentage of the final payment (agreement)	(b)	(4
		C4-5 Mission Training	Updated pressurized cargo complement Return cargo complement		
System Readiness Review (SRR)	(b) (4)	C6-2 Final Flight Products Load Plan from JPIA (satisfies delta MRAD) Imagery per C4-3 Pre-Flight Imagery Plan	Cargo Safety Assessment Updated Press Cargo Complement (Launch and Return) Final Flight Products NASA nominal cargo turnover to SpaceX		(b) (
Flight and Launch Readiness Review					
Launch	1				

© Space Exploration Technologies Corp.

Proprietary and Competition Sensitive Information

cargo to ISS	77 - 27 - 27 - 27 - 27 - 27 - 27 - 27 -	/		
	C7-1 Preliminary Post Flight Assessment			(b) (4
Post Flight Review	C7-2 Final Post Flight Assessment	Data supporting cargo status	(b) (4)	

LON Financial Information

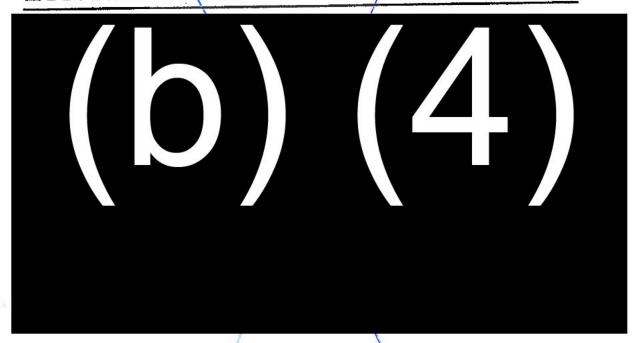


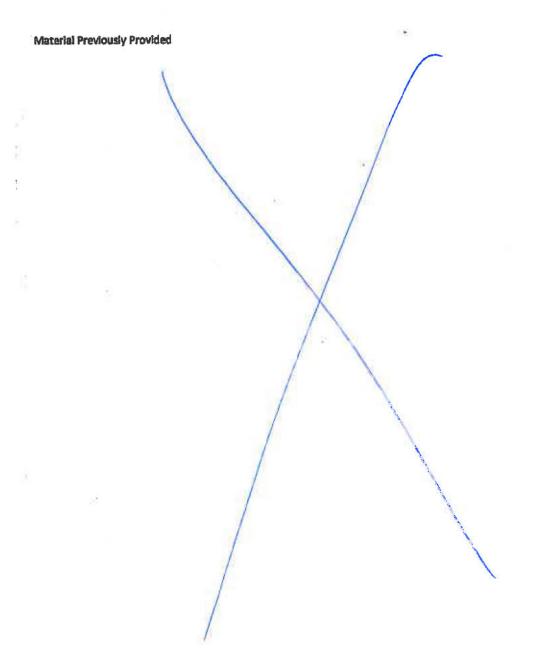
Table 3: Sample Re-payment Schedule—Repayment on CRS 12

	LOW Capability	Capability Capability	CIS 12 ATP	CBS 12 VBR	CKS 12 M/R	CNS 12 CIR	CNS 12 Launch	CRS 12 Post-flight
Contract Payment %								
CRS 12								
LON Capability Payments								
Action								
Net to SpaceX						l		
Net Repayment of \$104M								

Page | 9

© Space Exploration Technologies Corp. Proprietary and Competition Sensitive Information

Appendix A: System Description



USETION PURCHASE REQ. NO.	a PROJECT NO. (Fregotishin)
#8TERED BY (If critison floor 6)	S. PILOJECT NO. (Fryplichia)
	COOF JSC
A/Johnson Space Cente:	F
a: BG / Sharan D. Lof	ton
l NASA Parkway	
ston TX 77058-3696	
AMENDMENT OF SCLICITATION NO.	
DATED (SEE ITEM 11)	
- marin galletin 11 marin 1 mg	
A MODEFICATION OF CONTRACTIOROU NJO 9GA 04B	SP 440.
B. DATED (CÉE /TEM 13)	
121,23/2008	
pript of this entendment on which copy of the ULLYRE OF YOUR ACKNOWLEDGEMENT ECEPTED MAY MESILLY IN REJECTION O	o efferenbetikel; or (c) By 1 TO BE RECEIVED AT NY YOUR OFFER. II by
TROUGHS THE CONTRACTAL PRINT FOL A	S DESCRIZED IN STEEL 14.
IOGUTIES THE CONTRACTOR MED. A	S DESCRIZED IN NEW 14.
GEO BET FORTH IN ITEM 14 ARE MADE	
	IN THE CONTRACT
GES BET FORTH IN ITEM 14 ARE MADE DMINISTRATIVE CHANGES (Such as cha Y OF FAR 48.103(b).	IN THE CONTRACT
GES BET FORTH IN ITEM 14 ARE MADE DANNISTRATIVE CHANGES (Such ISI Cha Y OF FAR 45, 163(b).	IN THE CONTRACT
GES BET FORTH IN ITEM 14 ARE MADE DMINISTRATIVE CHANGES (Such as cha Y OF FAR 48.103(b).	IN THE CONTRACT
	AMENDMENT OF SCLIGHTATION NO. DATED (SEE ITEM 11) A MODE IGATION OF CONTRACTIONOR IN JO 9GAO 4B B. DATED (SEE ITEM 12) [2] 23/2008 RUNTION SCLIGHT ATOMA SOURCE OF YOUR ACKNOWN EDGENEEN SECOND OF SECONDOR

Except as provided horses, all horse and conditions of the dopum	ent refunenced in item SA or 10A,	63 hacetofore changed, remains unchanged and in All force and	ellect.
15A. NAME AND TITLE OF SIGNER (Type or print)		16A. SAME AND TITLE OF CONTRACTING OFFICER (Type of	ir pried)
Peter Capozzoli, Mission	8 goes entitled	Sharan D. Lofton	
15B. CONTRACTOR/OFFEROR	15C. Drite 82GMED	188 SHITEO STATES OF AMERICA	18C. DATE SIGNED
(Signature of polymental (results steps)	12/21/2011	Bhaign D. Hoton	12-22-2011
NSN 7540-01-162-6070 Previous edition unusative		GTANDARD I Prescribed by FAR (48 OFR	

1. The purpose of this modification is to update the Contract Statement of Work, Section 2.0, Standard Resupply Mission (CLIN 0001), page 51 due to updates to the Mission 3 Work Plan as detailed below:

Current Contract:

After CR3 Mission 4, the contractor will provide a Launch of Need capability for the launch of a Small Adapter Plate Assembly (SAPA) mounted Orbital Replacement Unit (ORU). To accommodate this provision, SpaceX will maintain in inventory one (1) SAPA to be used to launch a NASA defined ORU. LON manifest need dates, NASA deliverables and SpaceX analytical cycle is defined in the MIOMP (DRD C1-7).

Modified Contract:

After CRS Mission 4, the contractor will provide an inventory to ensure readiness for the launch of a Small Adapter Plate Assembly (SAPA,) EXPRESS Pallet Adapter (ExPA,) or Columbus External Phylosod Adapter (CEPA) mounted Orbital Replacement Unit (ORU). To accommodate this provision, SpaceX will maintain in inventory one (1) SAPA to be used to launch a NASA defined ORU. LON manifest need dates, NASA deliverables and SpaceX analytical cycle is defined in the MIOMP (DRD C1-7).

2. All other terms and conditions of NNJ09GA04B remain unchanged and in full effect.

			1. CONTRACT ID CODE	I P.	AGE OF PAGES
AMENDMENT OF SOLICITATION/MODIFIC	ATION OF CONTRACT			1.,	1 1
2 AMENOMENT/MODIFICATION NO.	3 EFFECTIVE DATE	4.	REQUISITION PURCHASE REQ. NO.	5. PROJ	ECT NO. (Il applicable)
000035	See Block 16C			<u> </u>	
6, ISSUED BY CODE	JSC	7.	ADMINISTERED BY (if other than Item 6)	CODE	JSC
NASA/Johnson Space Center Attn: BG / Sharan D. Lofton 2101 NASA Parkway Houston TX 77058-3696		A 2	ASA/Johnson Space Center ttn: BG / Sharan D. Loftor 101 NASA Parkway ouston TX 77058-3696	1	
8, NAME AND ADDRESS OF CONTRACTOR (IIIa., afree)	. county, State and ESP Code)	(x)	BA. AMENDMENT OF SOLICITATION NO.		
SPACEX 1 ROCKET RD HAWTHORNE CA 90250			BB DATED (SEE ITEM 11)		
		75	100. HODIFICATION OF CONTRACT/ORDER NO NNJO9GA04B	1.	
			108. DATED (SEE ITEM 13)		
CODE 3EVI8	FACILITY CODE	1	12/23/2008		
	11. THIS TIEN ONLY APPLIES TO	AME			
CHECK OKE A THIS CHANGE ORDER IS ISSUED PORDER NO. IN ITEM 10A	DDIFICATION OF CONTRACTS/ORDER URSUANT TO: (Specify authority) THE T/ORDER IS MODIFIED TO REFLECT IN ITEM 14, PURSUANT TO THE AUT	THE	ANGES SET FORTH IN ITEM 14 ARE MADE IN THE ADMINISTRATIVE CHANGES (such as changes in ITY OF FAR 43.103(b).	E CONTR	ACT
D. OTHER (Specify hypp of modification of	nd authority)				
X Nutual Agreement of t	he Parties				
E. IMPORTANT: Contractor U is not.	žuls required to sign this document and				
14. DESCRIPTION OF AMENDMENT/HODIFICATION (organized by UCF section headings, inc	studin	ng solicitation/contract subject matter where feasible.	.)	
The purpose of this modificat	ion is to add Clause	e I	I.A.32, Government's Right	to 1	Remotely
Sensed Data and revise Clause	II.A.31, entitled	Key	Personnel and Facilities,	add.	ing Andrew
Lambert as Vice President of	Froduction; removing	g C	hris Thompson; and changin	ıg Tir	n Buzza's
title to Vice President of La					
ttachment V.M., Special Task		ıdi	es Sub-CLIN Schedule for C	LIN (0003;
replacement pages are provide	d herein.				
all other terms and condition	s remain unchanged a	end	in full force and effect.		
Except as provided herein, all terms and conditions of the of SA NAME AND TITLE OF SIGNER (Type or print)	focument referenced in Item 9A or 10A	as h	erelatore changed, remains unchanged and in full to	res and s	ffect.
Julie A. Jiru/Contra	at- Defear	1 .	NAME AND TITLE OF CONTRACTING OFFICER	(Type ar	print)
SB. CONTRACTORIOFFEROR	15C. DATE SIGNED	L .	UNITED STATES OF AMERICA		Ison Days out
(Signature of person enthor, ed to sein)	14AR2	100	Journ D. Folton		18C. DATE SIGNED
beckerning as between extensitives to be said		1	(Signature of Confracting Officer)		1000 1000

NSiV 7540-01-152-8070 Previous edition unusable

STANDARD FORM 30 (REV. 10 83) Frescribed by GSA FAR (48 CFR) 53.243 Tim Buzza - Senier-Vice President of Production and Launch Vice President of Launch and Test

Mark Juncesa - Senior Director of Structures

Chris Thompson Senior Director of Production Development

Tom Mueller - Vice President, Propulsion

Bulent Altan - Senior Director of Avionics

Grant ingram - Director of Quality

Bob Reagan - Vice President of Machining

Andrew Lambert - Vice President of Production

Key Facilities

- Manufacturing and Production Facilities: SpaceX, Hawthorne, California (Falcon 9 and Dregon Production, Mission Control)
- Propulsion and Structural Testing Facilities: SpaceX, McGregor, Texas (Propulsion and Structural testing)
- (iii). Integration and Launch Facilities: Cargo Processing and Integration Facility at Cape Canaveral Launch Complex 40 (integration); Launch Site at Cape Canaveral (LC-40) (Launch)

(End of clause)

II.A.32 GOVERNMENT'S RIGHT TO REMOTELY SENSED DATA

The Contractor consents to the US Government collecting remotely sensed data related to its CRS vehicles and to use such data for US Government's purposes. The remotely sensed data may be used, modified, reproduced, released, performed, displayed, or disclosed within the Government. The Government may not, without the written permission of the Contractor, release or disclose the data outside the Government, use the technical data for manufacture, or authorize the technical data to be used by a party outside the Government. The remotely sensed data may be shared with, released to, or otherwise disclosed to the Contractor.

(End of Clause)

(END OF SECTION)

Attachment V.M. SPECIAL TASK ASSIGNMENTS AND STUDIES SUE-CLIN SCHEDULE FOR CLIN 003

This Sub-CLIN Schedule provides contract details for task orders issued under CLIN 0003.

0003AB	3	A	1/13/2010		
0003AB	3	A	1/13/2010	(b) (4)
0003AB	3	В	4/07/2010		
0003AB	3	С	6/29/2010		
0003AC	4	BASIC	1/25/2010		
0003AC	4	A	6/02/2010		
0003AC	6	BASIC	09/27/2010		
0003AC	7	BASIC	03/22/2011		
0003AC	8	BASIC	06/17/2011		
0003AC	9	BASIC	07/21/2011		
0003AC	10	BASIC	10/14/2011		
0003AC	11	BASIC	08/24/2011		
0003AC	11	A	10/26/2011		
0003AC	12	BASIC	11/28/2011		
0003AC	13	BASIC	12/13/2011		
0003AC	14	BASIC	01/12/2012		

AMENDMENT OF SOLICITATION/	MODIFICATION OF CONTRACT	1. CONTRACT ID CODE	PAGE OF PAGES
2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	1 4 5. PROJECT NO. (If applicable)
000036	See Block 160	4200433374	a ppinotoney
6. ISSUED BY	CODE JSC	7. ADMINISTERED BY (If other than Item 6)	CODE JSC
NASA/Johnson Space Cent Attn: BG / Sharan D. Lo 2101 MASA Parkway Houston TX 77058-3696		NASA/Johnson Space Center Attn: BG / Sharan D. Loft 2101 NASA Parkway Houston TX 77058-3696	:
RAME AND ADDRESS OF CONTRACTOR PACEX ROCKET RD AWTHORNE CA 90250	(No., street, county, State and EIF Code)	98. DATED (SEE ITEM 11) 10A. MODIFICATION OF CONTRACT/ORDER NNJ09GA04B	NO.
		10D. DATED (SEE ITEM 13)	
ODF 3BVI.8	FACILITY CODE		
		12/23/2008	
The above numbered solicitation is amended		TO AMENDMENTS OF SOLICITATIONS	anded. Dis not extended.
THE PLACE DESIGNATED FOR THE RECE	PT OF OFFERS PRIOR TO THE HOUR AN e an offer already submitted, such change my received prior to the opening hour and date s		OUR OFFEE
ee Schedule	N in required	et Increase:	(D)(4)
	S TO MODIFICATION OF CONTRACTS OF	DERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DE	(-/(-/
	NTRACT/ORDER IS MODIFIED TO REFLE FORTH IN ITEM 14, PURSUANT TO THE A EMENT IS ENTERED INTO PURSUANT TO	CT THE ADMINISTRATIVE CHANGES (such as changes UTHORITY OF FAR 43.103(b). AUTHORITY OF:	in paying office,
D. OTHER (Specify type of modifi			
X Clause II.A.2., NFS 2	852-232-77, Limitation of F	unds (Fixed-Price Contract) (Mar 198	0)
PORTANT: Contractor Sist	not. Is required to sign this document	and return copies to the Issuing	office,
DESCRIPTION OF AMENDMENT/MODIFICA continuation page	TION (Organized by UCF section headings,	including solicitation/contract subject matter where feasible	e.)
ot as provided herein, all terms and conditions NAME AND TITLE OF SIGNER (Type or print)	of the document referenced in Item 9A or 10	A, as herelofore changed, remains unchanged and in full fig. 18A. NAME AND TITLE OF CONTRACTING OFFICEI	orce and effect,
		Sharan D. Lefton	Strape or pung
CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
10		Sharan O Allon	- 4-23-201
(Signature of person authorized to sign)		(Signal tre of Conducting Office()	- THO WI

NSN 7540-01-152-8070 Previous edition unusable

STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFF.) 53.243 The purpose of this modification is to:

- 1. Increase funds on this contract from (b) (4)
- Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed -- Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):
 - (a) Of the total price of CLINs 0001 through 0004, the sum of presently available for payment and allotted to this contract.
 - (c)(1) It is contemplated that funds presently elletted to this contract will cover work to be performed until (b) (4)
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

II.A.2 NFS 1852.232-77 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (MAR 1989)

- (a) Of the total price of CLINs 0001 through 0004, the sum of 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 as required by the payment schedule in Clause II.A.6, until the total price of said CLINs is allotted.
- (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 Section II, Clause 52.212-4(1), Termination for the Government's Convenience, of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(1) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1. 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 contract Section II, Clause 52.212-4(1) notwithstanding.
- (c) Reserved.
 - (1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
 - (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 sixty (60) days the work will reach a point at which, if the contract is terminated pursuant to contract Section II, Clause 52.212-4(1) of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(1) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1.
 - (3) Reserved.
 - (i) The notice shall state the estimate when the point referred to in paragraph I(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, sixty (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 contract Section II, Clause \$2.212-4(1).
- (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(s) (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 Termination for Cause 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 contract Section II, Clause 52.212-4(i).

(End of clause)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE	PA	GE OF P	
2. AMENDMENT/MODIFICATION NO.	3. EF	FECTIVE DATE	4.	REQUISITION/PURCHASE REQ. NO.	5. PROJ	ECT NO. (III	12 (applicable)
000037	See	Block 16C					
6. ISSUED BY	CODE JSC		7.	ADMINISTERED BY (If other than item 6)	CODE	JSC	
NASA/Johnson Spack Cent Attn: BG / Sharan D. Lo 2101 NASA Parkway Houston TX 77058-3696			A 2	ASA/Johnson Space Cente ttn: BG / Sharan D. Lof 101 NASA Parkway buston TX 77058-3696			
8. NAME AND ADDRESS OF CONTRACTOR	pro_ street, county	State and ZIP Code)	(x)	SA AMENDMENT OF SOLICITATION NO			
SPACEX 1 RCCKET RD HAWTHORNE CA 90250			9B. DATED (SEE (TEM 11)				
			×	10A MODIFICATION OF CONTRACT/ORDE NNJO 9GAO 4B 10B. DATED (SEE ITEM 13)	R NO.		
CODE 3BVL8	FACIL	ITY CODE		12/23/2008			
	11.	THIS ITEM ONLY APPLIES T	O AMEN	DNENTS OF SOLICITATIONS			
lee Schedule							
13. THIS ITEM ONLY APPLIE CHECK ONE A THIS CHANGE ORDER IS IS ORDER NO. IN ITEM 10A	SSUED PURSUA	NT TO (Specify authority) Ti	HE CHA	MODIFIES THE CONTRACT/ORDER NO. AS NGES SET FORTH IN ITEM 14 ARE MADE II ADMINISTRATIVE CHANGES (such as change) TY OF FAR 43 103(b)	N THE CONTR	ACT	
13. THIS ITEM ONLY APPLIE CHECK ONE A THIS CHANGE ORDER IS IS ORDER NO. IN ITEM 10A	SSUED PURSUA ONTRACT/ORDE FORTH IN ITEM	NT TO (Specify authority) The ER IS MODIFIED TO REFLEC 114, PURSUANT TO THE AL	T THE	NGES SET FORTH IN ITEM 14 ARE MADE I ADMINISTRATIVE CHANGES (such as chang DY OF FAR 43.103(b)	N THE CONTR	ACT	
13. THIS ITEM ONLY APPLIE CHECK ONE A THIS CHANGE ORDER IS IS ORDER NO. IN ITEM 10A B THE ABOVE NUMBERED CO appropriation date, etc.) SET	SSUED PURSUA ONTRACT/ORDE FORTH IN ITEM	NT TO (Specify authority) The R IS MODIFIED TO REFLEC 114, PURSUANT TO THE AL TERED INTO PURSUANT TO	T THE	NGES SET FORTH IN ITEM 14 ARE MADE I ADMINISTRATIVE CHANGES (such as chang DY OF FAR 43.103(b)	N THE CONTR	ACT	
13. THIS ITEM ONLY APPLIE CHECK ONE A THIS CHANGE ORDER IS IS ORDER NO. IN ITEM 10A B THE ABOVE NUMBERED CLASPOPPISHON date, etc.) SET C THIS SUPPLEMENTAL AGR	SSUED PURSUA DITRACT/ORDE FORTH IN ITEM EEMENT IS ENT	NT TO (Specify authority) TO ER IS MODIFIED TO REFLEC 114, PURSUANT TO THE AL TEREO INTO PURSUANT TO	T THE	NGES SET FORTH IN ITEM 14 ARE MADE I ADMINISTRATIVE CHANGES (such as chang DY OF FAR 43.103(b)	N THE CONTR	ACT	
13. THIS ITEM ONLY APPLIE CHECK ONE A THIS CHANGE ORDER IS IS ORDER NO. IN ITEM 10A B THE ABOVE NUMBERED CO Appropriation date, etc.) SET C THIS SUPPLEMENTAL AGR D OTHER (Specify type of mode) X Mutual Agreement IMPORTANT: Contractor	DITRACT/ORDE FORTH IN ITEM EEENIENT IS ENT WIGHTON and auth Of the	ER IS MODIFIED TO REFLEC 114, PURSUANT TO THE AL TERED INTO PURSUANT TO PORTLY FAITLES	T THE	NGES SET FORTH IN ITEM 14 ARE MADE II ADMINISTRATIVE CHANGES (such as charge try of FAR 43.103(b) ORITY OF.	N THE CONTR	ACT	
13. THIS ITEM ONLY APPLIE CHECK ONE A THIS CHANGE ORDER IS IS ORDER NO. IN ITEM 10A B THE ABOVE NUMBERED CL APPROPRIENT ALAGR C THIS SUPPLEMENTAL AGR D OTHER (Specify type of mod X Mutual Agreement IMPORTANT: Confinctor 164 4 DESCRIPTION OF AMENDMENT/MODIFIC	DNTRACT/ORDER FORTH IN ITEM EEENENT IS ENT MICEUON and aut Of the S not. X, is 10: EATION (Organia	ER IS MODIFIED TO REFLECT 14, PURSUANT TO THE ALITERED INTO PURSUANT TO THE ALITERED INTO PURSUANT TO CONTROL OF THE ALITERED INTO PURSUANT TO CONTROL OF THE ALITERED INTO PURSUANT TO CONTROL OF THE ALITERED INTO A CO	T THE JTHOR!	NGES SET FORTH IN ITEM 14 ARE MADE II ADMINISTRATIVE CHANGES (such as changed by OF FAR 43, 103(b) IRITY OF. 1 copies to the issues of copies to the issues of copies to the issues of copies in the insues of copies in the issues of copies in the insues of copies in the issues of copies in the insues of copies in th	N THE CONTR	ACT	
A THIS CHANGE ORDER IS IS ORDER NO. IN THEM 10A B THE ABOVE NUMBERED CO Appropriation date, etc.) SET C THIS SUPPLEMENTAL AGR D OTHER (Specify type of mod Mutual Agreement IMPORTANT: Contractor is a DESCRIPTION OF AMENDMENT/MODIFIC the purpose of this modified	DNTRACT/ORDE FORTH IN ITEM MEASURE and aud of the income and aud of the income and aud arrive and aud of the income arrive arrive arrive arrive arrive (Organical fination)	RT TO (Specify authority) THE RIS MODIFIED TO REFLECT 14, PURSUANT TO THE ALTERED INTO PURSUANT TO CONTROL OF THE ALTERED INTO PURSUANT TO CONTROL OF THE ALTERED INTO PURSUANT TO CONTROL OF THE ALTERED INTO ALTERE	T THE JTHOR!	ADMINISTRATIVE CHANGES (such as change of the control of the contr	n THE CONTR Jes in paying of the state of t	ACT fice.	4
A THIS CHANGE ORDER IS IS ORDER NO. IN THEM 1DA B THE ABOVE NUMBERED CO Appropriation date, etc.) SET C THIS SUPPLEMENTAL AGR D OTHER (Specify type of mode) Mutual Agreement IMPORTANT: Contractor is 4 DESCRIPTION OF AMENDMENT/MODIFIC the purpose of this modificatement of Work (SOW),	DNTRACT/ORDE FORTH IN TEN EEENIENT IS ENT Of the of the snot x, is re- intion (Organia fication Section	RT TO (Specify authority) THE RIS MODIFIED TO REFLECT 14, PURSUANT TO THE ALTERED INTO PURSUANT TO CONTROL OF THE ALTERED INTO PURSUANT TO CONTROL OF THE ALTERED INTO PURSUANT TO CONTROL OF THE ALTERED INTO ALTERE	AUTHO	ADMINISTRATIVE CHANGES (such as charge to FAR 43.103(b)) ORITY OF. In	n THE CONTR	ACT fice. A., NDE att	
A THIS CHANGE ORDER IS IS ORDER NO. IN THEM 1DA B THE ABOVE NUMBERED CO Appropriation date, etc.) SET C THIS SUPPLEMENTAL AGR D OTHER (Specify type of mode) MULTURAL AGREEMENT (SPECIFY TYPE OF THE AGREEMENT OF AMENDMENT (MODIFIC THE PURPOSE OF THIS MODIFIC TION THE PURPOSE OF T	ONTRACT/ORDER FORTH IN THE MACHINE BEENIENT IS ENTI- OF the Is not. X is no AATION (Organization Section Inifested)	ER IS MODIFIED TO REFLECT 14, PURSUANT TO THE ALL FERED INTO PURSUANT TO THE ALL FERED INTO PURSUANT TO CONTROL FOR THE ALL FO	T THE THORITON AUTHORITON AUTHORI	ADMINISTRATIVE CHANGES (such as charge to FAR 43 103(b)) ORITY OF. In	ung office. soble) chment V mple D.1	ACT A., NDE and rewisi	оп
A THIS CHANGE ORDER IS IS ORDER NO. IN ITEM 10A B THE ABOVE NUMBERED OR appropriation date, etc.) SET C THIS SUPPLEMENTAL AGR D OTHER (Specify type of mod Mutual Agreement IMPORTANT: Contrador De purpose of this modi; tatement of Work (SOW), Usat payloads may be man in response to Space of the purpose of this modi; to the purpose of this modi; to the purpose of this modi; to the purpose of this modi; to the purpose of this modi; to the purpose of this modi; to the purpose of this modi; to the purpose of this modi; to the purpose of this modi; to the purpose of this modi; to the purpose of this modi; to the purpose of this modi; to the purpose of this modi; to the purpose of this modi; to the purpose of this modi; to the purpose of the purp	ONTRACT/ORDER FORTH IN ITEM MEASUREMENT IS ENT OF the I S not	ER IS MODIFIED TO REFLECT 14, PURSUANT TO THE ALL FERED INTO PURSUANT TO THE ALL FOR THE STATE OF THE STATE O	AUTHORITATION AU	ADMINISTRATIVE CHANGES (such as charger) of FAR 43.103(b) ORITY OF. 1 copies to the issues a soficialization for ing language to Attack consured cargo, for examples and the ingent of the issues and commercial mission." ter dated February 8, 2 is letter dated May 1, 2	n THE CONTR	ACT AA., NDE and revisi Space provi	on X's dad
A THIS ITEM ONLY APPLIE CHECK ONE A THIS CHANGE ORDER IS IS ORDER NO. IN ITEM 10A B THE ABOVE NUMBERED CO appropriation date, etc.) SET C THIS SUPPLEMENTAL AGR D OTHER (Specify type of mod X Mutual Agreement IMPORTANT: Confinctor THE GENERAL OF AMENDMENT/MODIFIC THE PURPOSE OF THIS MODIFIC THE TOTAL OF THE THIS MODIFIC THE TOTAL	ONTRACT/ORDER FORTH IN ITEM MEASUREMENT IS ENT OF the I S not	ER IS MODIFIED TO REFLECT 14, PURSUANT TO THE ALL FERED INTO PURSUANT TO THE ALL FOR THE STATE OF THE STATE O	AUTHORITATION AU	ADMINISTRATIVE CHANGES (such as charger) of FAR 43.103(b) ORITY OF. 1 copies to the issues a soficialization for ing language to Attack consured cargo, for examples and the ingent of the issues and commercial mission." ter dated February 8, 2 is letter dated May 1, 2	n THE CONTR	ACT AA., NDE and revisi Space provi	on X's dad
A THIS ITEM ONLY APPLIE CHECK ONE A THIS CHANGE ORDER IS IS ORDER NO. IN ITEM 10A B THE ABOVE NUMBERED CO appropriation date, etc.) SET C THIS SUPPLEMENTAL AGR D OTHER (Specify type of mod X Mutual Agreement IMPORTANT: Confinctor THE GENERAL OF AMENDMENT/MODIFIC THE PURPOSE OF THIS MODIFIC THE TOTAL OF THE THIS MODIFIC THE TOTAL	ONTRACT/ORDER FORTH IN ITEM MEASUREMENT IS ENT OF the I S not	ER IS MODIFIED TO REFLECT 14, PURSUANT TO THE ALL FERED INTO PURSUANT TO THE ALL FOR THE STATE OF THE STATE O	AUTHORITATION AU	ADMINISTRATIVE CHANGES (such as charger) of FAR 43.103(b) ORITY OF. 1 copies to the issues a soficialization for ing language to Attack consured cargo, for examples and the ingent of the issues and commercial mission." ter dated February 8, 2 is letter dated May 1, 2	n THE CONTR	ACT AA., NDE and revisi Space provi	on X's dad
A THIS ITEM ONLY APPLIE CHECK ONE A THIS CHANGE ORDER IS IS ORDER NO. IN ITEM 10A B THE ABOVE NUMBERED CO appropriation date, etc.) SET C THIS SUPPLEMENTAL AGR O OTHER (Specify type of mod I MUTUAL AGREEMENT DESCRIPTION OF AMENDMENT/MODIFIC THE PURPOSE OF THIS MODIFIC THE TOTAL AGREEMENT OF THE TOTAL AGREEMENT OF WORK (SOW), JSat payloads may be man so in response to Space of the purpos	ONTRACT/ORDER FORTH IN THE MEEBNENT IS ENT. MEEBNENT IS ENT. of the is not. X, is no. ATION (Organization fination nifested X's Cargo for Technow), Section on Section for Technow), Section of the cargo for Technow, Section of the cargo for Technow).	ER IS MODIFIED TO REFLECT 114, PURSUANT TO THE AL TERED INTO PURSUANT TO TOTAL	THE CHA	ADMINISTRATIVE CHANGES (such as changer of FAR 43.103(b)) ORITY OF. 1 copies to the issue a social control of the issue as covered cargo, for example and the infer of the issue and the infer of the issue as commercial mission." The commercial mission." The copies to the issue as control of the issue as commercial mission." The copies to the issue as control of the issue as control or infer of the issue as control or infer of the issue as control or infer of the issue as control or infer of the issue as control or infer of the issue as control or infer of the issue as control or infer of the issue as control or infer of the issue as control or infer of the issue as control or infer of the issue as control or infer of the issue as control or infer or infe	nthe contraction paying of the contraction of the c	ACT AA., NDE and revisi Space provi	on X's dad
A THIS ITEM ONLY APPLIE CHECK ONE A THIS CHANGE ORDER IS IS ORDER NO. IN ITEM 10A B THE ABOVE NUMBERED CO appropriation date, etc.) SET C THIS SUPPLEMENTAL AGR O OTHER (Specify type of mod I MUTUAL AGREEMENT DESCRIPTION OF AMENDMENT/MODIFIC THE PURPOSE OF THIS MODIFIC THE TOTAL AGREEMENT OF THE TOTAL AGREEMENT OF WORK (SOW), JSat payloads may be man so in response to Space of the purpos	ONTRACT/ORDER FORTH IN THE MEETING and author of the sont x, is no action fination fination section sold x's Cargo for Technow, Section	ER IS MODIFIED TO REFLECT 114, PURSUANT TO THE AL TERED INTO PURSUANT TO TOTAL	THE CHA	ADMINISTRATIVE CHANGES (such as changer of FAR 43.103(b)) ORITY OF. 1 copies to the issue a social control of the issue as covered cargo, for example and the infer of the issue and the infer of the issue as commercial mission." The commercial mission." The copies to the issue as control of the issue as commercial mission." The copies to the issue as control of the issue as control or infer of the issue as control or infer of the issue as control or infer of the issue as control or infer of the issue as control or infer of the issue as control or infer of the issue as control or infer of the issue as control or infer of the issue as control or infer of the issue as control or infer of the issue as control or infer of the issue as control or infer or infe	nthe contraction paying of the contraction of the c	ACT AA., NDE and revisi Space provi	on X's dad
A THIS TEM ONLY APPLIE CHECK ONE A THIS CHANGE ORDER IS IS ORDER NO. IN HEM 10A B THE ABOVE NUMBERED CO appropriation date, etc.) SET C THIS SUPPLEMENTAL AGR O OTHER (Specify type of mod MULTUAL AGREEMENT DESCRIPTION OF AMENDMENT/MODIFIC THE PURPOSE OF THIS MODIFIC THE TOTAL AGREEMENT OF THE PURPOSE THE PURPOSE OF THIS MODIFIC THE PURPOSE OF THIS MODIFIC THE PURPOSE OF THIS MODIFIC THE PURPOSE OF THIS MODIFIC THE PURPOSE OF THIS MODIFIC THE PURPOSE OF THIS MODIFIC THE PURPOSE OF THIS MODIFIC THE PURPOSE OF THIS MODIFIC THE PURPOSE OF THIS MODIFIC THE PURPOSE OF THIS MODIFIC THE PURPOSE OF THIS MODIFIC THE PURPOSE OF THIS MODIFIC THE PURPOSE OF THIS MODIFIC THE PURPOSE OF THIS MODIFIC THE PURPOSE OF THIS MODIFIC THE PURPOSE OF THIS MODIFICATION THE PUR	ONTRACT/ORDER FORTH IN THE MEETING and author of the sont x, is no action fination fination section sold x's Cargo for Technow, Section	ER IS MODIFIED TO REFLECT 114, PURSUANT TO THE AL TERED INTO PURSUANT TO TOTAL	THE CHA	ADMINISTRATIVE CHANGES (such as changer of FAR 43.103(b)) ORITY OF. 1 copies to the issue a social control of the issue as covered cargo, for example and the infer of the issue and the infer of the issue as commercial mission." The commercial mission." The copies to the issue as control of the issue as commercial mission." The copies to the issue as control of the issue as control or infer of the issue as control or infer of the issue as control or infer of the issue as control or infer of the issue as control or infer of the issue as control or infer of the issue as control or infer of the issue as control or infer of the issue as control or infer of the issue as control or infer of the issue as control or infer of the issue as control or infer or infe	nthe contraction paying of the contraction of the c	ACT AA., NDE and revisi Space provi	on X's dad
A THIS CHANGE ORDER IS IS ORDER NO. IN HEM 10A B THE ABOVE NUMBERED CO appropriation date, etc.) SET C THIS SUPPLEMENTAL AGR D OTHER (Specify type of mod X Hutual Agreement IMPORTANT: Contractor is 4 DESCRIPTION OF AMENDMENT/MODIFIC the purpose of this modi; tatement of Work (SOW), USat payloads may be man s in response to Space 2 epily to NAS.'s Request is erein. Additionally, So diffication. Il other terms and condition	ONTRACT/ORDIFORTH IN TEN DEEMENT IS ENT Of the is not. X, is re- ATION (Organization Section Infected X's Cargo for Technolow, Section Section Infected Section Infected Section Infected Section Infected Section Infected Section Infected Section Infected Section Infected Section Infected Section Infected Section Infected Section Infected Section Infected Section Infection	ER IS MODIFIED TO REFLECT 14, PURSUANT TO THE AL FERED INTO PURSUANT TO FORTY FARTIES Quind to sign this document early UCF section headings, is to add the 1.0 Scope, "Na. on a non-NASA; Accommodations sical Clarification 1.0, replace main unchanged	THE CHARLES THE CH	ADMINISTRATIVE CHANGES (such as changed of the control of the cont	ung office. soive.) This in the contract of	ACT AA., NDE and revisit Space provifithis	on X's dad
A THIS CHANGE ORDER IS IS ORDER NO. IN TIEM TOA B THE ABOVE NUMBERED OR appropriation date, etc.) SET C THIS SUPPLEMENTAL AGR D OTHER (Specify type of mod X Hutual Agreement IMPORTANT: Contractor 4 DESCRIPTION OF AMENDMENTIMODIFIC the purpose of this modificatement of Work (SOW), USat payloads may be man sin response to Space 2 eply to NASA.'s Request is erein. Additionally, So odification. 11 other terms and conditional contractions and conditional contractions.	ONTRACT/ORDER FORTH IN ITEM Measure and audit of the interval	ER IS MODIFIED TO REFLECT 114. PURSUANT TO THE AL TERED INTO PURSUANT TO TOTAL	THE CHARLES AUTHORITION OF THE CHARLES AUTHORITI	ADMINISTRATIVE CHANGES (such as charge to FAR 43 103(b)) RETY OF. 1 copies to the issue a solicitation/contract subject metter where fee to ring lauguage to Attack consured cargo, for exalex commercial mission." ter dated February 8, 2 is letter dated May 1, 2 it page is provided as put in full force and effer	ung office. soive.) This in the contract of	ACT AA., NDE and revisit Space provifithis	on X's dad
CHECKOME A THIS CHANGE ORDER IS IS ORDER NO. IN ITEM 10A B THE ABOVE NUMBERED CO appropriation date, etc.) SET C THIS SUPPLEMENTAL AGR D OTHER (Specify type of mod X Mutual Agreement IMPORTANT: Contractor He purpose of this modificatement of Work (SOW), Usat payloads may be man s in response to Space of the purpose of the man s in response to Space of the purpose of the man s in response to Space of the purpose of the man s in response to Space of the purpose of the man s in response to Space of the purpose of the man s in response to Space of the purpose of the man s in response to Space of the purpose of the purpose of the man s in response to Space of the purpose of the	ONTRACT/ORDER FORTH IN ITEM Measure and audit of the interval	ER IS MODIFIED TO REFLECT 14, PURSUANT TO THE AL FERED INTO PURSUANT TO FORTY FARTIES Quind to sign this document early UCF section headings, is to add the 1.0 Scope, "Na. on a non-NASA; Accommodations sical Clarification 1.0, replace main unchanged	THE CHARLE CHARLES AUTHOR CONTROL CONT	ADMINISTRATIVE CHANGES (such as changed and in NANYE AND TITLE OF CONTRACTING OFF	ung office. soive.) This in the contract of	ACT A., NDE and revisi Space provi f this	on X's dad

NSN 7540-01-152-8070 Previous edition unusable STANDARD FORM 30 (REV 10-83) Prescribed by GSA FAR (48 CFR) 53,243

1.0 SCOPE

This Statement of Work (SOW) and all exhibits and documents attached or referenced herein define NASA's requirements for the Contractor to provide resupply service to the International Space Station (ISS), dispose of unneeded cargo, and to return cargo from the ISS back to NASA. Cargo includes both NASA cargo and NASA-sponsored cargo (hereinafter referred to as "cargo"). Cargo includes both pressurized and unpressurized payloads. Contracts may include missions for pressurized or unpressurized delivery, disposal, return, or any combination thereof. NASA will provide internal cargo to the Contractor including packing materials (bags, foam, flight support equipment). Cargo combined with packing materials and/or flight support equipment is referred to as "customer cargo". NASA will provide external cargo to the Contractor without flight support equipment, referred to as "usable cargo". NASA will provide access to detailed design information, developed by or delivered to NASA, for components associated with ISS and orbital vehicle interfaces, such as the Common Berthing Mechanism and Flight Support Equipment (FRAM or direct mount), necessary to fulfill this Statement of Work. This includes hardware drawings, acceptance test procedures, test equipment designs and data for the contractor's use in acquiring or procuring these items. The Contractor shall perform all tasks necessary to ensure safe and reliable cargo integration and transportation to and from the ISS. NASA will provide Thermal Vacuum testing and Bake-out for the first FRAM built by SpaceX using NASA engineering resources and MSFC facilities. Additionally NASA will provide on an as available basis, FRAM Ground Support Equipment to support first flight FRAM manufacture and testing.

NASA will only have unlimited rights to data first produced in the performance of the services procured under this contract.

NASA-sponsored cargo, for example DANDE and CUSat payloads may be manifested on a non-NASA SpaceX commercial mission.

2.0 STANDARD RESUPPLY MISSION (CLIN 0001)

The Contractor shall perform the tasks necessary to execute all phases of the resupply mission per this SOW. The Standard Resupply Mission may consist of pressurized upmass delivery, unpressurized upmass delivery, secondary deployable payloads (PPODs), cargo disposal or cargo return. The Contractor shall provide the necessary services, test hardware and software, and mission specific elements required to integrate the cargo to the orbital and launch vehicle systems. The Contractor shall perform the required tasks to accomplish the resupply missions to and from the ISS. The Contractor shall provide the required cargo de-integration and return services, where applicable, to deliver cargo back to NASA. The standard external (unpressurized) upmass complement is identified in Attachment V.F.

After CRS Mission 2, the contractor will provide both the updated standard and extended trunk capability, in accordance with DRD C3-1, as part of the STANDARD resupply mission to accommodate large unpressurized ORUs and PPOD Deployables.

Space Exploration Technologies

8 February 2012

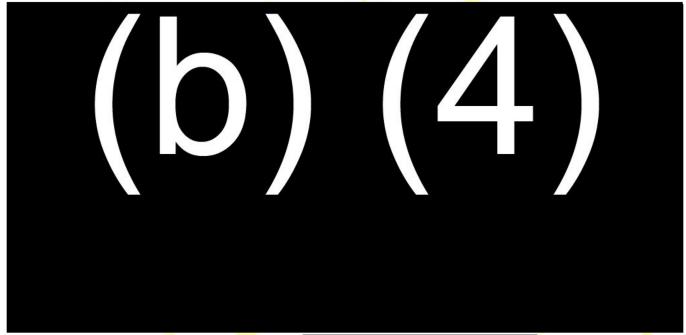
By Electronic Mail Only

Eric Schell
Contracting Officer
NASA—Johnson Space Center
2101 NASA Parkway
Houston, TX 77058

Subject: CRS Contract NNJ09GA0B -SpaceX Cargo Accommodations

Dear Eric,

In ongoing discussions between SpaceX and NASA, it is clear the NASA desires an enhanced capability for powered cargo. In final design iterations of the Dragon system it has also become clear that early SpaceX CRS missions have decreased cargo performance.



As always, please feel free to contact me at questions or would like additional information.

(b) (4)

if you have any

Best regards,

Julie A. Jiru Contracts Officer

(b) (4)

Space Exploration Technologies

1 May 2012

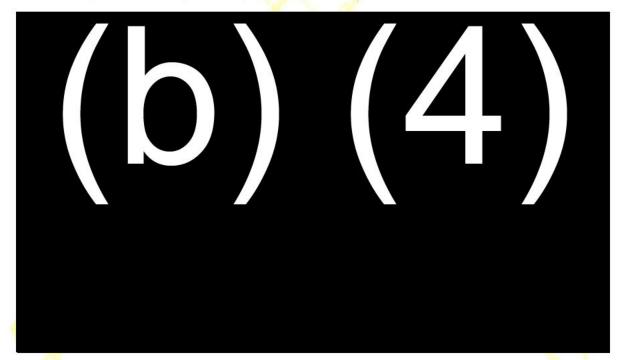
By Electronic Mail Only

Eric Schell
Contracting Officer
NASA—Johnson Space Center
2101 NASA Parkway
Houston, TX 77058

Subject: CRS Contract NNJ09GA0B-SpaceX Reply to NASA's Request for Technical Clarifications

Dear Eric,

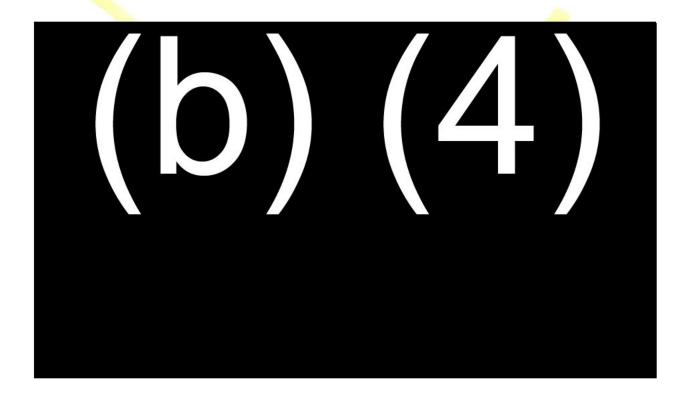
This letter responds to NASA's email titled, Technical Clarification for SpaceX Proposals, dated 26 Mar 2012 and is provided in replacement of SpaceX's letter submitted on 12 April 2012. For ease of reference, both NASA's requests and SpaceX's responses are provided below.



All April 6 dates in NASA's requests were changed to April 13.

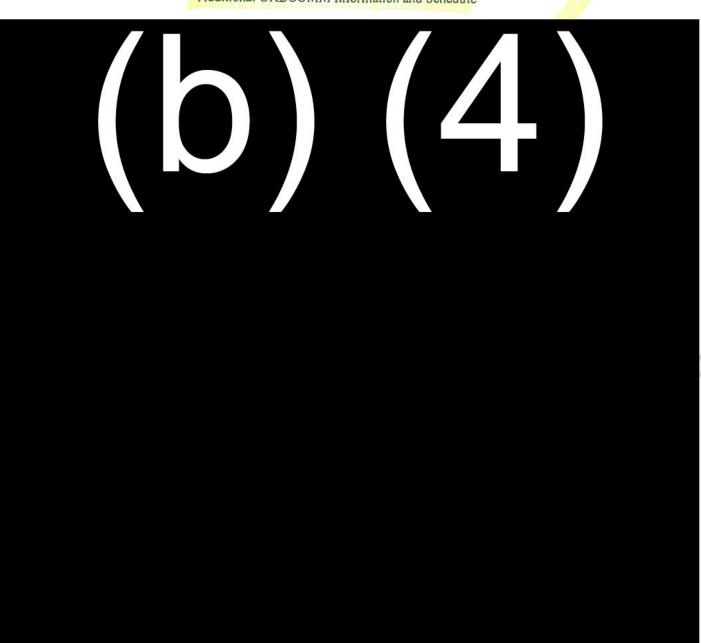
ATTACHMENT 1

NASA's ORBCOMM Payload Mitigation Recommendations



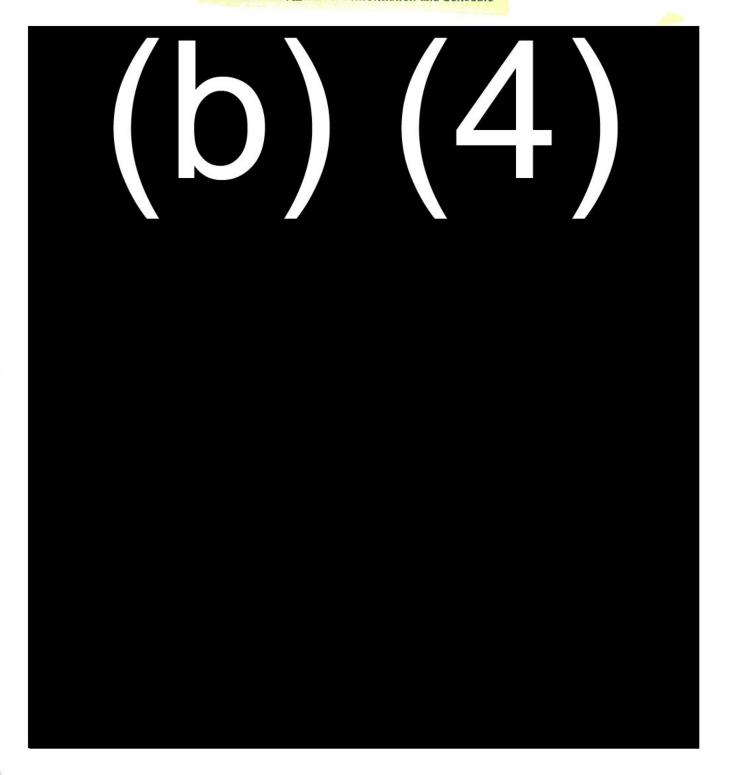
ATTACHMENT 2

Additional ORBCOMM Information and Schedule



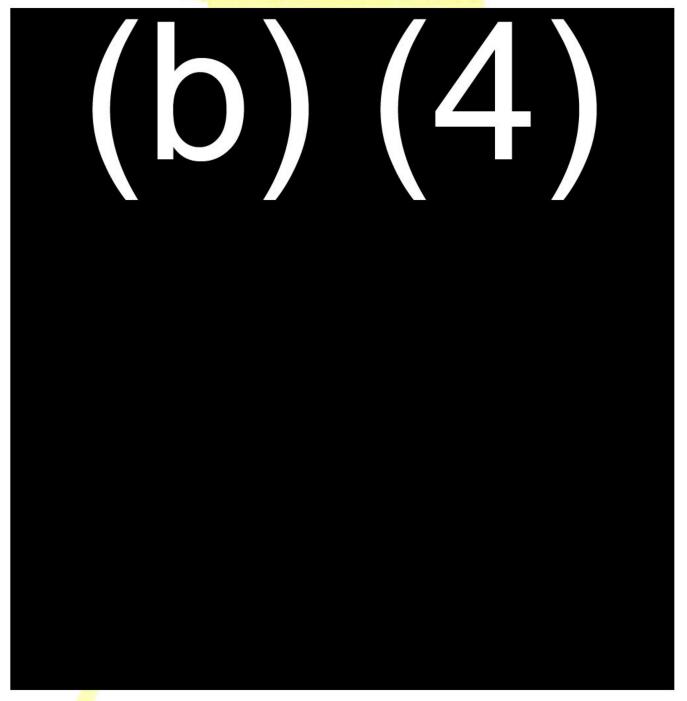
ATTACHMENT 2

Additional ORBCOMM Information and Schedule



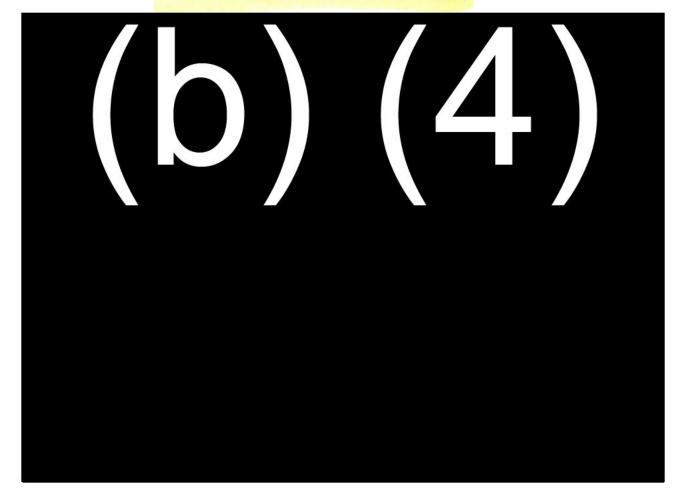
ATTACHMENT 2

Additional ORBCOMM Information and Schedule



ATTACHMENT 2

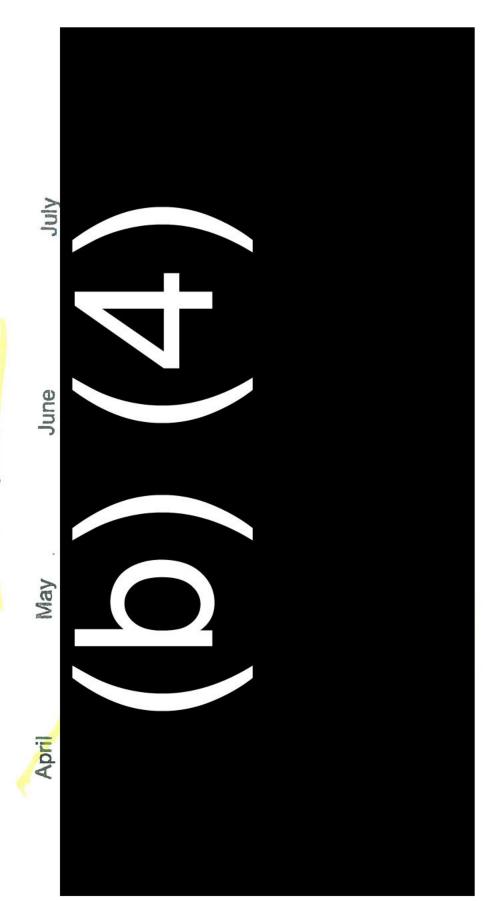
Additional ORBCOMM Information and Schedule



ATTACHMENT 2

Additional ORBCOMM Information and Schedule

Development and Implementation Schedule



Page 5 of 5

(b) (4)

(b) (4)

As always, please feel free to contact me at (b) (4) if you have any questions or would like additional information. SpaceX looks forward to working with NASA and making continued progress on the items discussed above.

Best regards,

Julie A. Jiru Contracts Officer

³ This file was a power point slide titled, SpaceX/Orbcomm Assessment Findings, dated, 6 March 2012. The specific mitigation requirements/recommendations from the referenced slides are provided in Attachment 1.

AMENDME	INT OF SOLICITATION/MO	ODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGES	,
2. AMENDME	NT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REC	RUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applic	able)
000038		See Block 16C	4200	438556		
6. ISSUED BY	1	CODE JSC	7. AD	MINISTERED BY (If other than Item 6)	CODE JSC	
NASA/Jo	hnson Space Cente	r	NAS	A/Johnson Space Cent		
	G / Sharan D. Loi		1000000	n: BG / Sharan D. Lo		
2101 NA	SA Parkway		100000000000000000000000000000000000000	I NASA Parkway		
Houston	TX 77058-3696		Hou	ston TX 77058-3696		
B. NAME AND	ADDRESS OF CONTRACTOR	No., street, county. State and ZiP Code)	(x) 9A	AMENDMENT OF SOLICITATION NO.		_
PACEX			100			
ROCKET	r RD		98	DATED (SEE ITEM 11)		
	IE CA 90250					
			100	HORICION DE CONTRACTION	255.40	
			× N	A MODIFICATION OF CONTRACT/OR IJO9GAC4B	DER NO.	
						9
			101	B. DATED (SEE ITEM 13)	9 9900	59 <u>—</u> 8800
CODE 3B	AT'8	FACILITY CODE		12-23-20	008	
		11. THIS ITEM ONLY APPLIES		ENTS OF SOLICITATIONS		
		as set forth in Item 14. The hour and date s			s extended. Is not extended.	
		dment prior to the hour and date specified in copies of the amendment; (b) By acknowledges				
		ference to the solicitation and amendment				
		PT OF OFFERS PRIOR TO THE HOUR A				
to the soliciti	ation and this amendment, and is	e an offer already submitted, such change m received prior to the opening hour and date	nay be made to specified.	by telegram or latter, provided each teleg	gram or letter makes reference	
	ING AND APPROPRIATION DAT	(A (If required)	Net Inc	rease:	(b) (1)	
See Sche	edule				(D)(4)	195253
	13. THIS ITEM ONLY APPLIE	S TO MODIFICATION OF CONTRACTS/OF	RDERS. IT M	DDIFIES THE CONTRACT/ORDER NO.	AS DESCRIBED IN ITEM 14.	
CHECK ONE	A. THIS CHANGE ORDER IS IS ORDER NO. IN ITEM 10A.	SUED PURSUANT TO: (Specify authority)	THE CHANG	ES SET FORTH IN ITEM 14 ARE MAD	E IN THE CONTRACT	
	R. THE ADDIVE AN IMPEDED OF	ON TRACITIONEES IS MODIFIED TO DESI	FOT THE AD	AND TO THE CHANCE OF THE COLUMN		
	appropriation date, etc.) SEI	ONTRACT/ORDER IS MODIFIED TO REFL FORTH IN ITEM 14, PURSUANT TO THE	AUTHORITY	OF FAR 43.103(b).	anges in paying office,	
	C THIS SUPPLEMENTAL AGE	EEMENT IS ENTERED INTO PURSUANT	TO ALITHOD	TV DE-		
	4. Il no soil pameliline non	DEBETT TO ENTERED TO TOTAL	TO ACTION	Ti or.		
	D. OTHER (Specify type of mod	fication and authority)				2 121
x	Clause II. A. 2., NE	S 1852-232-77, Limitation of	of Funds	(Fixed-Price Contract) (F	dar 1989)	
IMPORTANT	T: Contractor Fig.	rot. le required to sign this docume	nt and return	copies to the	issuina office.	*/
	ti etterioren en	ATION (Organized by UCF section heading				
	inuation page	The forganized by Golf Society Hoteling	ya, marpang a	onengeometrioses assess mailes missia	reduible.)	
	1,					
		ns of the document referenced in Item 9A o				
SA. NAME AN	ID TITLE OF SIGNER (Type or p:	int)	16A, I	NAME AND TITLE OF CONTRACTING	OFFICER (Type or print)	
			Sha	ran D. Lofton		
5P. CONTRAC	CTOR/OFFEROR	15C, DATE SIGNE	D 168. L	INITED STATES OF AMERICA	16C, DATES	IGNED
				4. > 1-0		
- 0	Signature of person authorized to sign)		225	(Signature of Contracting Officer)	6-1	4-1.
ISN 7540-01-1				(contract of contract of contract)	STANDARD FORM 30 (REV. 1	0-831
revious edition				**	Prescribed by GSA	

STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243

The purpose of this modification is to:

- 1. Increase funds on this contract from (b) (4)
- Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):
 - Of the total price of CLINs 0001 through 0004, the sum of (b) (4)

 (a) is presently available for payment and allotted to this contract.
 - (c)(1) It is contemplated that funds presently allotted to this contract will cover work to be performed until (b) (4)
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

II.A.2 NFS 1852.232-77 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (MAR 1989)

- (a) Of the total price of CLINs 0001 through 0004, the sum of 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 as required by the payment schedule in Clause II.A.6, until the total price of said CLINs is allotted.
- (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 Section II, Clause 52.212-4(l), Termination for the Government's Convenience, of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1. 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 contract Section II, Clause 52.212-4(l) notwithstanding.
- (c) Reserved.
 - (1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
 - (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 sixty (60) days the work will reach a point at which, if the contract is terminated pursuant to contract Section II, Clause 52.212-4(l) of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1.
 - (3) Reserved.
 - (i) The notice shall state the estimate when the point referred to in paragraph I(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, sixty (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 contract Section II, Clause 52.212-4(1).
- (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(s) (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 Termination for Cause 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 contract Section II, Clause 52.212-4(l).

(End of clause)

AMENDM	ENT OF SOLICITATION/MODIFIC	CATION OF CONTRACT	1. CONTRACT ID CODE	PAGE OF PAGES
2 AMENDAS	ENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISMION/PURCHASE REQ.	NO. 1 4 4 1 1 4 1 1 1 1
	ENTINODIFICATION NO.		4200438919	S. PROJECT No. (II applicable)
6. ISSUED B	Y CODE	See Block 16C	7. ADMINISTERED BY (If other than	(tem 6) CODE JSC
NASA/Jo Attn: E 2101 NA	ohnson Space Center BG / Sharan D. Lofton ASA Parkway n TX 77058-3696	030	NASA/Johnson Space Attn: BG / Sharan 2101 NASA Parkway Houston TX 77059-3	Center D. Lofton
SPACEX 1 ROCKE	D ADDRESS OF CONTRACTOR (Arc., street T RD NE CA 90250	rt, county, Stale and ZIP Code)	98. DATED (SEE ITEM 11)	TION NO.
			x 10A MODIFICATION OF CONTR NN J 0 9 GA 0 4 B 10B. DAYED (SEE ITEM 13)	
CODE 3E	BVL8	FACILITY CODE	12-23-200	B
		11. THIS ITEM ONLY APPLIES TO	AMENDMENTS OF SOLICITATIONS	
virtue of this to the solici		er already submitted, such change may be d prior to the opening hour and date spe	e made by lelegram or latter, provided e lifed. : Increase:	(b) (4)
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED FOR ORDER NO. IN ITEM 10A. B. THE ABOVE NUMBERED CONTRAC appropriation date, etc.) SET FORTI			
	C. THIS SUPPLEMENTAL AGREEMEN			
	D. OTHER (Specify type of modification	and authority)		
x	Clause II. A. 2., NFS 105	[[] [] [] [] [] [] [] [] [] [] [] [] []	funds (Fixed-Price Contra	ct) (Mar 1989)
. IMPORTAN		is required to sign this document an		es to the issuing office.
	TION OF AMENDMENT/MODIFICATION			
lee cont	tinuation page			
	vided herein, all terms and conditions of the ND TITLE OF SIGNER (Type or print)	a document referenced in Item BA or 10/	16A. NAME AND TITLE OF CONTR	
			Sharan D. Lofton	
	CTORIOFFEROR	15C, DATE SIGNED	16B. UNITED STATES OF AMERICA (Signature of Contraction	for 1-14-12
	(Signature of person authorized to sign;		1 To grieffing or ophiliation	CTANOADD EDDH 20 (DEV 40 99)

NSN 7540-01-152-8970 Previous edition unusable STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53,243 The purpose of this modification is to:

- 1. Increase funds on this contract from 5 (b) (4) (b) (4)
- Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):

Of the total price of CLINs 0001 through 0004, the sum of 5 (b) (4)

- (a) is presently available for payment and allotted to this contract.
- (c)(1) It is contemplated that funds presently allotted to this contract will cover work to be performed until (b) (4)
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

II.A.2 NFS 1852.232-77 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (MAR 1989)

- (a) Of the total price of CLINs 0001 through 0004, the sum of 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 as required by the payment schedule in Clause II.A.6, until the total price of said CLINs is allotted.
- (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 Section II, Clause 52.212-4(l), Termination for the Government's Convenience, of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1. 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 contract Section II, Clause 52.212-4(l) notwithstanding.
- (c) Reserved.
 - (1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
 - (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 sixty (60) days the work will reach a point at which, if the contract is terminated pursuant to contract Section II, Clause 52.212-4(l) of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1.
 - (3) Reserved.
 - (i) The notice shall state the estimate when the point referred to in paragraph I(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, sixty (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 contract Section II, Clause 52.212-4(1).
- (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(s) (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 Termination for Cause 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 contract Section II, Clause 52.212-4(1).

(End of clause)

AMENDMENT OF SOLICITATION/MODIFIC	ATION OF CONTRAC	CT	1. CONTRACT ID CODE	PAGE OF PAGES			
				1 4			
AMENDMENT/MODIFICATION NO	3 EFFECTIVE DATE		REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable	9)		
00040	See Block 160		00441747				
NASA/Johnson Space Center Attn: BG / Sharan D. Lofton 2101 NASA Parkway Houston TX 77058-3696			7. ADMINISTERED BY (If other than liem 6) CODE JSC NASA/Johnson Space Center Attn: BG / Sharan D. Lofton 2101 NASA Parkway Houston TX 77058-3696				
NAME AND ADDRESS OF CONTRACTOR (No., stree	(, county, State and ZIP Code)	(x)	9A AMENDMENT OF SOLICITATION NO.				
ROCKET RD AWTHORNE CA 90250			9B. DATED (SEE ITEM 11)				
		×	10A MODIFICATION OF CONTRACT/ORDE NNJ 0 9 GA 0 4 B	RNO.			
			10B, DATED (SEE ITEM 13)				
CODE 3BVL8	FACILITY CODE		12/23/2008				
	11. THIS ITEM ONLY A	APPLIES TO AME	NOMENTS OF SOLICITATIONS		_		
CHECK ONE A. THIS CHANGE ORDER IS ISSUED ORDER NO. IN ITEM 10A.	ODIFICATION OF CONTRA	ACTS/ORDERS. I'	TIMODIFIES THE CONTRACT/ORDER NO. AS ANGES SET FORTH IN ITEM 14 ARE MADE IN EXAMINISTRATIVE CHANGES (such as changing of page 1).	N THE CONTRACT			
C THIS SUPPLEMENTAL AGREEMEN	IT IS ENTERED INTO PUR	RSUANT TO AUTH	IORITY OF:				
D. OTHER (Specify type of modification	and authority)						
X Clause II. A. 2., NFS 18	52-232-77, Limita	tion of Fund	ds (Fixed-Price Contract) (Ma	r 1939)			
. IMPORTANT: Contractor X is not.	is required to sign this	document and ret	urn 0 copies to the iss	uing office.			
14. DESCRIPTION OF AMENDMENT/MODIFICATION	(Organized by UCF section	n heedings, includi	ing soficitation/contract subject matter where fe	esible.)			
See continuation page Except as provided herein, all terms and conditions of t	, he document referenced in	ltem 9A or 10A, as	s heratofora changad, ramains unchangad and	in full force and effect.			
5A. NAME AND TITLE OF SIGNER (Type or print)		1	6A. NAME AND TITLE OF CONTRACTING O	FFICER (Type or print)			
		s	Sharan D. Lofton				
15B, CONTRACTOR/OFFEROR	15C. DAT		6B. UNITED STATES OF AMERICA	16C, DATE SIGN 1-31			
(Signature of person authorized to sign)			(Signature of Contracting Officer)	1-2-1	4		

NSN 7540-01-152-8070 Previous edition unusable STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53 243 The purpose of this modification is to:

- 1. Increase funds on this contract from
 (b) (4)
- Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):

Of the total price of CLINs 0001 through 0004, the sum of (b) (4)

- (a) is presently available for payment and allotted to this contract.
- (c)(1) It is contemplated that funds presently allotted to this contract will cover work to be performed until (b) (4)
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

II.A.2 NFS 1852.232-77 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (MAR 1989)

- (a) Of the total price of CLINs 0001 through 0004, the sum of (b) (4) 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 as required by the payment schedule in Clause II.A.6, until the total price of said CLINs is allotted.
- (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 Section II, Clause 52.212-4(l), Termination for the Government's Convenience, of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1. 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 contract Section II, Clause 52.212-4(l) notwithstanding.
- (c) Reserved.
 - (1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
 - (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 sixty (60) days the work will reach a point at which, if the contract is terminated pursuant to contract Section II, Clause 52.212-4(l) of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1.
 - (3) Reserved.
 - (i) The notice shall state the estimate when the point referred to in paragraph I(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, sixty (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 contract Section II, Clause 52.212-4(1).

- (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(s) (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 Termination for Cause 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 contract Section II, Clause 52.212-4(1).

(End of clause)

AMENDMENT OF SOLICITATION/M	ODIFICATION OF CONTRACT	1. CONTRACT ID CODE	PAGE OF PAGES			
2 AMENDMENT/MODIFICATION NO	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	1 4 5. PROJECT NO. (If applicable)			
000041	See Block 16C	4200450723	THOUSE THO. (II applicable)			
6. ISSUED BY	CODE JSC	7. ADMINISTERED BY (If other than Item 6)	CODE LISC			
NASA/Johnson Space Center Attn: BG / Sharan D. Lo. 2101 NASA Parkway Houston TX 77058-3696	er	NASA/Johnson Space Center Attn: BG / Sharan D. Lofton 2101 NASA Parkway Houston TX 77058-3696				
8. NAME AND ADDRESS OF CONTRACTOR (SPACEX L ROCKET RD	No , street, county, State and ZIP Code)	(x) BA. AMENDMENT OF SOLICITATION NO. 9B. DATED (SEE ITEM 11)				
HAWTHORNE CA 90250		x 10a. Modification of contract/order N NNJ09GA04B	0.			
CODE 3BVL8	FACILITY CODE	12/23/2008				
en in the second	11. THIS ITEM ONLY APPLIES	TO AMENDMENTS OF SOLICITATIONS				
THE PLACE DESIGNATED FOR THE RECE	PT OF OFFERS PRIOR TO THE HOUR AN e an offer already submitted, such change ma received prior to the opening hour and data	numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO ID DATE SPECIFIED MAY RESULT IN REJECTION OF YOu be made by telegram or letter, provided each telegram or specified. Jet Increase:	UR OFFER, If by			
	S TO MODIFICATION OF CONTRACTS/OR	DERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DES	CRIBED IN ITEM 14			
B. THE ABOVE NUMBERED CC appropriation date, etc.) SET	ONTRACT/ORDER IS MODIFIED TO REFLE FORTH IN ITEM 14, PURSUANT TO THE A EEMENT IS ENTERED INTO PURSUANT T	THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CHANGES (Such as changes in AUTHORITY OF FAR 43, 103(b).				
X Clause II. A. 2., NF	S 1852-232-77, Limitation of	f Funds (Fixed-Price Contract) (Mar 1	989)			
.IMPORTANT: Contractor 🗵 is	not. is required to sign this document	and return 0 copies to the issuing	office			
	ATION (Organized by UCF section headings	i, Including solicitetion/contract subject metter where feesible				
wrent as provided herein, all terms and condition	18 of the document referenced in them CA ar-	10A, as heretofore changed, remains unchanged and in full	force and effect			
A NAME AND TITLE OF SIGNER (Type or pri		19A. NAME AND TITLE OF CONTRACTING OFFICE Sharan D. Lofton				
B CONTRACTOR/OFFEROR	15C. DATE SIGNED		16C, DATE SIGNED			
e, estimate attorrenor	TOO. DATE SIGNED	Sharan O Soften				
(Signature of person authorized to sign)		(Signature of Confricting Officer)	09/05/2012			
N 7540 04 463 9070	1	CTA	NDARD FORM 30 (RE) (40 82)			

NSN 7540-01-152-8070 Previous edition unusable STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243 The purpose of this modification is to:

- 1. Increase funds on this contract from (b) (4)
- Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):

Of the total price of CLINs 0001 through 0004, the sum of (b) (4)

- (a) is presently available for payment and allotted to this contract.
- (c)(1) It is contemplated that funds presently allotted to this contract will cover work to be performed until (b) (4)
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

II.A.2 NFS 1852.232-77 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (MAR 1989)

- (a) Of the total price of CLINs 0001 through 0004, the sum of (b) (4) 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 as required by the payment schedule in Clause II.A.6, until the total price of said CLINs is allotted.
- (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 Section II, Clause 52.212-4(l), Termination for the Government's Convenience, of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1. 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 contract Section II, Clause 52.212-4(l) notwithstanding.
- (c) Reserved.
 - (1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
 - (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 sixty (60) days the work will reach a point at which, if the contract is terminated pursuant to contract Section II, Clause 52.212-4(1) of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(1) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1.
 - (3) Reserved.
 - (i) The notice shall state the estimate when the point referred to in paragraph I(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, sixty (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 contract Section II, Clause 52.212-4(1).

- (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(s) (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 Termination for Cause 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 contract Section II, Clause 52.212-4(1).

(End of clause)

	MODIFICATION OF CONTRACT	1 CONTRACT ID SCES	FACE OF FACES
2. AMS NOMENTATODIFICATION NO.	IS EFFECTIVE DATE	A RECUÉTION/PORCHASE REO NO.	1 Z
005042	free Block 16C		2 THOSEST NO IN EDITION
5 ISSUED EY	CODE USC	/ ADMIN'S TURE O BY (Follow lines here c)	COUR WES
MASA/Johnson Space Cent	Loc	NASA/Johnson Space Center	t
Artn: BG / Sharan D. Lo	of Lon	Attn: BG / Sharan b. Lofte	วท
2101 BASA Parkway		2101 NASA Parkvay	
Houston TX 77058-3696		Houston TX 77058-3596	
8 NAME AND ADDRESS OF CONTRACTOR	Polis , event premy, Sala and 207 Calle)	(N) WA AMENDMENT OF SOLICITATION NO	
PACEX			. photographic
ROCKET AD		98 DATED (SEE WEN'11)	
ANVHORNE CA RO250			
		2. TO A MODIFICATION OF CONTRACTIONDER O	10
		TOE DATED (SEE FIELD 13)	
SEVI8	FACILITY CODE	12/23/2008	
	11. THE ITEN ONLY APPLIES	CAMENDMENTS OF SOLICITATIONS	
		HE CHANGES SET FORTH IN DESCRIPTION OF AN OF	
S. THE ABOVE NUMBERED C	CONTRACTIONDER IS MODIFIED TO REFLE TECRTININITIEM IN FURSUANT TO THE 7	OT THE ADMINISTRATIVE CHANGES (such as changed of UTHISRITY OF PAR 43 103(b)	n paying cline,
	REEMENT IS ENTERED INTO PURBLIANT TO	DAUTHURITY OF	V 4
C. THIS SUPPLEMENTAL AGE		DAUTHORITY OF	
	วที่แอกอก ลอส อเสพอกใช	DAUTHURITY OF	No. 1
D OTHER REpends been of more X Marking I Agreement	วที่แอกอก ลอส อเสพอกใช		65.5¢
D OTHER (Specify box of most X Marchael Agreement Supportant: Occupate 15	cricenon and extensión C of the Farties incl. (x is required to high Colument CATICHS (Department by UCF section recompas	end return copies to the dawing including solicitororic contest subject resident where feest	c.)
D OTHER REPORTS DOES OF MARKET TO STREET THE	of the Farties into its equivalence on the document CATOMS (Ocumentary UCF section housings, fication is to said Sect	end mount	e) w Privacy to
D OTHER EXPENSIVE OF AN ACT OF THE SUPPLEMENTAL AGE ***X	of the Farties into its equivalence on the document CATOMS (Ocumentary UCF section housings, fication is to said Sect	end return copies to the dawing including solicitororic contest subject resident where feest	e) w Privacy to
D OTHER EXPENSIVE OF AN ACT OF THE SUPPLEMENTAL AGE ***X	of the Farties into its equivalence on the document CATOMS (Ocumentary UCF section housings, fication is to said Sect	end mount	e) w Privacy to
D OTHER ESPECTA DOS OF MOST X NATIONAL AGENCY OF AMENDMENTAL CONTROL OF AMENDMENTAL MODIFICATION OF AMENDMENTAL MODIFICATION OF AMENDMENTAL MODIFICATION OF PUTPOSE OF THIS MODIFICATION.	informaceumonia t of the Farties and (communication of Secured CATOM (Communicaty UCF sector heavings fication is to add Sect not of Work (SOW). The S	endesurcopies to the desurge containing selecterovectoried susper matter where feet ion 2.2.5 Data Review for Cres	e) by Privacy to led as page 2 of
D OTHER (Special bos of most X National Agreement I MADE A DESCRIPTION OF AMENDMENTACOURS TO PUT POSSE OF THIS MODIFICATION V.A., Statements Modification.	informaceumonia t of the Farties and (communication of Secured CATOM (Communicaty UCF sector heavings fication is to add Sect not of Work (SOW). The S	end mount	e) by Privacy to led as page 2 of
D OTHER REPORTS DOE O' MOST X NAITHOUT AGT PROMISE TO A DESCRIPTION OF AMENDMENTARCOURS TO PUT POST OF THE PUT	informaceumonia t of the Farties and (communication of Secured CATOM (Communicaty UCF sector heavings fication is to add Sect not of Work (SOW). The S	endesurcopies to the desurge containing selecterovectoried susper matter where feet ion 2.2.5 Data Review for Cres	e) by Privacy to led as page 2 of
D OTHER (Special bids of most X National Agreement Exportant Commune 1 Description of Amendmentarions of this modification.	informaceumonia t of the Farties and (communication of Secured CATOM (Communicaty UCF sector heavings fication is to add Sect not of Work (SOW). The S	endesurcopies to the desurge containing selecterovectoried susper matter where feet ion 2.2.5 Data Review for Cres	e) by Privacy to led as page 2 of
D OTHER (Special bids of most X National Agreement Exportant Commune 1 Description of Amendmentarions of this modification.	of the Farties and (company to probe document CATOM (Opens or to add Sect ant of Work (SOW). The S	endesurcopies to the desurge containing selecterovectoried susper matter where feet ion 2.2.5 Data Review for Cres	e) by Privacy to led as page 2 of
D OTHER REPORTS DOE O' MOST X NAITHOUT AGT PROMISE TO A DESCRIPTION OF AMENDMENTARCOURS TO PUT POST OF THE PUT	of the Farties and (company to probe document CATOM (Opens or to add Sect ant of Work (SOW). The S	endesurcopies to the desurge containing selecterovectoried susper matter where feet ion 2.2.5 Data Review for Cres	e) by Privacy to led as page 2 of
D OTHER (Special bos of most X National Agreement I MADE A DESCRIPTION OF AMENDMENTACOURS TO PUT POSSE OF THIS MODIFICATION V.A., Statements Modification.	of the Farties and (company to probe document CATOM (Opens or to add Sect ant of Work (SOW). The S	endesurcopies to the desurge containing selecterovectoried susper matter where feet ion 2.2.5 Data Review for Cres	e) by Privacy to led as page 2 of
D OTHER ESPECTA DOS OF MOST X NATIONAL AGENCY OF AMENDMENTAL CONTROL OF AMENDMENTAL MODIFICATION OF AMENDMENTAL MODIFICATION OF AMENDMENTAL MODIFICATION OF PUTPOSE OF THIS MODIFICATION.	of the Farties and (company to probe document CATOM (Opens or to add Sect ant of Work (SOW). The S	endesurcopies to the desurge containing selecterovectoried susper matter where feet ion 2.2.5 Data Review for Cres	e) By Privacy to Sed as page 2 of
D OTHER ESpecial box of most X Marchael Agreement Appropriate Discontinuous Discontinuous Discontinuous Continuous Contin	The first is a common of the Farties is not a sequent to prove document of the faction is to add Section of Work (SGW). The Sations remain which anged to set the sequent micro continuous and the sequent with the sequent micro continuous sequent m	endesion	e) Privacy to Sed as page 2 of
D OTHER ESpecial box of most X Marchael Agreement Appropriate Discontinuous Discontinuous Discontinuous Continuous Contin	The first is a common of the Farties is not a sequent to prove document of the faction is to add Section of Work (SGW). The Sations remain which anged to set the sequent micro continuous and the sequent with the sequent micro continuous sequent m	endesoncopes to the decorporate state from the state for Cres ion 2.1.5 Data Review for Cre OW replacement page is provide and in full force and effect	e) Privacy to Sed as page 2 of
D OTHER REPORTS DOES OF MANY X MAILTAN A AGREEMENT COMMENTER A DESCRIPTION OF AMERICAN ENGAGEMENT V.A., Statement trachment V.A., Statement is modification.	The first is a common of the Farties is not a sequent to prove document of the faction is to add Section of Work (SGW). The Sations remain which anged to set the sequent micro continuous and the sequent with the sequent micro continuous sequent m	endesion	e) Privacy to Sed as page 2 of
D OTHER REPORT DOE O' MOST X RESTORED A DESCRIPTION OF AMERICAN MARKET THE PURPOSE OF THIS MODIFICATION. ILL OTHER REPORT OF AMERICAN ACCOUNTS TO A MERICAN ACCOUNTS TO A MERICAN ACCOUNTS THE PURPOSE OF THE ACCOUNTS ACCOUNTS THE COUNTS ACCOUNTS ACCOUNTS THE COUNTS ACCOUNTS THE COUNTS ACCOUNTS ACC	The first is a common of the Farties is not a sequent to prove document of the faction is to add Section of Work (SGW). The Sations remain which anged to set the sequent micro continuous and the sequent with the sequent micro continuous sequent m	end maker compared support maker where feet in 2.2.5 Data Review for Crs ON replacement page is provide and in full force and effect and in full force and effect to a name of the cross support remains unchanged and in the last the name and the compared of the compared to the last name and the compared to contract the compared to the last name and the compared to contract the compared to the last name and the compared to contract the compared to the last name and the compared to contract the compared to the last name and the compared to contract the compared to the com	e) Privacy to Sed as page 2 of
D OTHER (Spend) bos of most X Instabl Agreement Appendix Community Community of this modification. It other terms and condition the purpose of this modification.	incommunications are estimated in the Farties and (sursummitten on the document (CATONS (Opensed by UCF encion heavings fication is to add Section of Work (EGW). The Sations remain unchanged in the communication of the document microscope in the sations are main unchanged in the communication of the document microscope in the sations are main unchanged in the communication of the document microscope in the sations are main unchanged in the communication of the document microscope in the sations are main unchanged in the communication of the document microscope in the sations are made in the communication of the document microscope in the sations are made in the communication of the communicat	ond make and the design of the state of the	torce and official

NSN 7540-01-157-5070 Francisco union unusable

STANDARD FORM SO (REV 10 83)
Prescribed by USA
FAR (46 CFR) 52 843

confirming the required launch and orbit conditions and cargo environments were met as stated in the IDD (DRD C3-1). The Preliminary Post Flight Assessment (DRD C7-1) shall contain the data necessary to verify these conditions. The Contractor shall measure and provide telemetry data to the extent required by Section 2.2.2 below. NASA will be responsible for providing data supporting earge status.

Mission success will be determined based on the orderic set forth in Contract Section II.A.19, Mission Success Determination, Investigation and Corrective Action.

2.1.2. CONFIGURATION MANAGEMENT

The Contractor shall operate in compliance with the configuration management plan submitted with the request for proposal (DRD C1-4).

2.1.3. EXPORT CONTROL MANAGEMENT

The Contractor shall operate in compliance with the Export Control Plan submitted in accordance with DRD C1-5.

2.1.4. SCHEDULING

The Contractor shall develop and maintain mission specific schedules that contain an end-to-end cargo and vehicle integration schedule in accordance with DRD C2-2 (Integrated Schedules); identify critical milestones; and provide the schedule for each mission sleet-onically to the IES Fregram.

2.1.3 DATA REVIEW FOR CREW PRIVACY

Audio and imagery from within the pressurized volume will be protected in accordance with SSP 50S21 "Return, Processing, Distribution and Archiving of Imagery Products from the ISS" to protect crewmember privacy. For video taken during attached operations that is downlinked, the Contractor shall route the data in real-time to the NASA Mission Control Center. NASA will monitor the video feed and instruct the Contractor to terminate the feed from release to public outlets in the event of a privacy concern. For video and audio recorded during attached operations and recovered post-flight, the Contractor shall send a copy of the data to NASA for review. The Contractor shall not release any video with crewmembers in view until the NASA review is complete. NASA will tell the contractor if any data is restricted. Restricted data cannot be released by the Contractor, either inarmally or externally, or used in any way. Data that does not contain convenients is not restricted and may be used by the Contractor without review. NASA will archive the data and any data not restricted will be classified as shered.

2.2. VEHICLE INTEGRATION

The Contractor shall build, process, integrate and operate the launch and orbital vehicles necessary to provide resupply service to the ISS. The Contractor shall obtain the support services, permits and licenses necessary to complete the resupply service.

2.2.1. LAUNCH VEHICLE (LV) PREPARATION AND LAUNCH

The Contractor shall:

	WILLIAM SOCIOLIST TO SELECT	SEFECATION OF CONTRACT		* TRANSPORT TO GODE	CAGE OF PAGES			
2 400 70	mentalistical anon no	F3 EFFECTIVE CATE	4 266	5 POINT TO HISTORIES				
900994		See drock : ' '		The state of the s	- State of the suggestion)			
n issues	av	CODE 130	T 40	innest i parci ny produvo in in hem 6)	LODE TORREST			
NASA/JUDDAJE Spiele Jelje Alter B& / Statum C. Istue ZEOI NASA Farkwiy Spieles TX / Tolk-7595			NAME OF THE STATE					
E TRANSF A	N.) ADDRESS OF CONTRACTOR IN	s time story State and Chiling	(A) QA	ameniment of social atoming				
PACES								
MATRO: ROUK	ete da 90290		90	DATEG (SEE HEM II)				
			7 99	MODIFICATION OF CONTRACTION CFR	NG			
- Ale			108 DATED (258 (15W 13)					
GICO YEAR BROWN			12423/2000					
-	the management of the State of	14 THIS IYEN GIRKAYAMINE	vo kurkeur	ives of society anons	NVSNi i kita natenda i			
The library Dates must be the the the the the the the the the th	o aumbered solectation is amended as is adviceded or some! of this amended is \$5, and interning item or integrant which in licitize is refer to the solectation of the second or an amendment your desires to change is particularly and desires to change in author and this amendment.	11 THIS VEH DILLY APPLIES set to the normal decrease and date a country of the neural and date a country of the american and date appointed to the property of the american business of the american and american to the country of the three property of the property of the countr	YO ARENBUR proubed for room the self-crubed overeigning more leastborn. FAIL ob CATE SPSC by self-cace by	ives of society anons	THE NUCLEYED AT			
The library of the li	e wantpered solectation is amended as is advisorable element of this amende of \$5, and infamous in liadius are it designed which in liadius are it designed that if the place is amendment you desire to change a parion and the amendment and a re- tring AND APPROPRIATION DATA.	11 THIS VEH DILLY APPLIES set to the normal decrease and date a country of the neural and date a country of the american and date appointed to the property of the american business of the american and american to the country of the three property of the property of the countr	YO ARENBUR proubed for room the self-crubed overeigning more leastpore. FAIL ob CATE SPSC by self-cace by	DES GREGORITATIONS red of Office or as amended, by one of the following an or of the amendment on each topy of the o DRE OF YOUR AGRADMETORE MENT TO THESE WAY THESIS, I IN A SECTION OF Y	outcos (a) by computing offer nutricitied or (a) by This necknies of Discourse of the Disco			
The library Office mu Herric Buch separate in THE MEAG setter Of th Author soic	e wentpered solectation is amended as in advisorable element of this amende of \$5, and priaming the mission is rele the openion what is his also recept the openion of the properties of the participant is amendement you desire to change a training and the amendment and a re- tring and appropriation calls.	THE THE STEW SERVE APPLIES and long and long and long and long and long and long and long and long and long applies of the americans of the americans of the americans and americans of all the second and americans and an other americans and authorized, such change in other americans to the courses and to the courses and to the courses and the courses are to the courses and the courses are to the courses and the courses are the courses and the courses are the courses and the courses are the courses and the courses are the courses and the courses are the courses are the courses are the course of the courses are the course of the courses are the course of	YE ATTENDED TO A TO A TO A TO A TO A TO A TO A TO	DES GREGORITATIONS red of Office or as amended, by one of the following an or of the amendment on each topy of the o DRE OF YOUR AGRADMETORE MENT TO THESE WAY THESIS, I IN A SECTION OF Y	ottoos (at By computers) ider autoritied, or (a) By 3 BE HILLENED AT FOUR OFFER Hay IT STOLE makes relations			
The above Office mu- Hama Burt separate in the Mode within soic ACCOUNT	e wentpered solectation is amended as it ucknowledge record of this amende of 55, and priamonal minut in leading or rele of the solectation which in leading or rele of the solectation whose in leading is amended that amended in ord is or TING AND APPHOPRIATION CATE 13. THIS ISER ONLY APPLIES.	THE THE STEW SERVE APPLIES AND IN THE THE BOW AND AND A MAN TO THE HOUR AND AND AND AND AND AND AND AND AND AND	YO AVENBUE producted for room the sufficiation of the sufficiation of the sufficiation of the sufficient of the sufficie	PIES OF SOURCESTIONS Perf of Office (Fixed to as ammedia, by som of the following rice of the following rice of the following rice of the secretary of the country of the secretary of the country of the secretary of the secretary of the following rice of the foll	AND AND AND AND AND AND AND AND AND AND			
The above of the smultiple of the Avenus of the Avenus old the Ave	o wendered solicitation is amended as it acknowledge record of this amended of 55, and priorition of the amended of 55, and priorition which in labellar is referenced to a solicitation and a few amendment you desire to change is based on the amendment of the act in the act of the act o	THE THE SELLY APPLIES AN I forth in them 14. The blow and dire is freet once to the near and date is substitled in copies of the americand, (b) by some result to the possibilities and immeriations in of it is substituted and immeriations in offer already substitled, such change in terms once to the contrary and one day in imposed. TO EXPONENCE TONION CONTRACTS CAN INDIVIDUAL TO I (Seriely authorsy)	YO AVENBUE product for room the selectable production FALL do UATE SPEC do SPECAL SPEC OURS OF MOD THE CHANGES	THE OF SOURCE ATHORS Held of Office OF AN ADDRESS OF THE SHOWING HIS DE OF BUS INVESTMENT OF ASON CODY OF THE ADDRESS OF ADDRESS OF A THE A	PROPERTY OF THE TA			
The above of the services of t	a windered soledation is amended as it acknowledge record of this amended of 55, and priorities which is facilities are of the soledate of 55, and priorities which is facilities are of the assistant facilities are of the soledate of the soledate of the anti-distribution and the amendment and a resulting AND APPROPRIATION CATALOGUE OF THE TOTAL OF THE CHARGE OF THE TOTALOGUE OF THE ABOVE MUSTIFERED CONTRACTOR ADORDOGUES AND ADDITIONAL ASSISTANT ASSISTANT AND ADDITIONAL ASSISTANT AND ADDITIONAL ASSISTANT AND ADDITIONAL ASSISTANT ASSISTANT AND ADDITIONAL ASSISTANT ASSISTANT ASSISTANT ASSISTANT ASSISTANT ASSISTANT ASSISTANT ASSISTANT ASSISTANT ASSISTANT ASSISTANT ASS	THE THE SELLY APPLIES AN I forth in them 14. The blow and dire is freet once to the near and date is substitled in copies of the americand, (b) by some result to the possibilities and immeriations in of it is substituted and immeriations in offer already substitled, such change in terms once to the contrary and one day in imposed. TO EXPONENCE TONION CONTRACTS CAN INDIVIDUAL TO I (Seriely authorsy)	PO AUENBUR peraled for received on the selectables peredong received on FALL po UATE SPEC of se made by syected OURS IT MOD THE CHANGET ECT THE ACMIT ALL THE ALL THE ACMIT ALL	THE OF SOURCE AND THE PRODUCT OF SOURCE OF SOU	PROPERTY OF THE TA			
The above of the services of t	a windered soledation is amended as it acknowledge record of this amended of 55, and priorities which is facilities are of the soledate of 55, and priorities which is facilities are of the assistant facilities are of the soledate of the soledate of the anti-distribution and the amendment and a resulting AND APPROPRIATION CATALOGUE OF THE TOTAL OF THE CHARGE OF THE TOTALOGUE OF THE ABOVE MUSTIFERED CONTRACTOR ADORDOGUES AND ADDITIONAL ASSISTANT ASSISTANT AND ADDITIONAL ASSISTANT AND ADDITIONAL ASSISTANT AND ADDITIONAL ASSISTANT ASSISTANT AND ADDITIONAL ASSISTANT ASSISTANT ASSISTANT ASSISTANT ASSISTANT ASSISTANT ASSISTANT ASSISTANT ASSISTANT ASSISTANT ASSISTANT ASS	THE THE SELLY APPLIES AND THE THE BOW AND AND AND AND AND AND AND AND AND AND	PO AUENBUR peraled for received on the selectables peredong received on FALL po UATE SPEC of se made by syected OURS IT MOD THE CHANGET ECT THE ACMIT ALL THE ALL THE ACMIT ALL	THE OF SOURCE AND THE PRODUCT OF SOURCE OF SOU	PROPERTY OF THE TA			
The above of the smultiple of the Avenus of the Avenus old the Ave	a windered solicitation is amended as it acknowledge record of this amended of \$5, and infarming other or independent of \$5, and infarming other or independent of \$500 Tale (MESSIGNATED FOR TALE (MESSIGNATED FOR TALE) or independent of the amendment you desire to change a serion and the amendment and a resilient and \$100 APPROPRIATION CATALLY OF THE STEAM ONE Y APPLIES OF THE STEAM OF THE TOWN OF THE ABOVE MUSTIFIED CONTRACTOR AND ADDITIONAL ARRESTS OF THE STEAM OF THE ABOVE MUSTIFIED CONTRACTOR ADDITIONAL ARRESTS OF THE STEAM OF THE ABOVE MUSTIFIED CONTRACTOR ADDITIONAL ARRESTS OF THE ABOVE MUSTIFIED CONTRACTOR ADDITIONAL ARRESTS OF THE ABOVE MUSTIFIED CONTRACTOR ADDITIONAL ARRESTS OF THE ABOVE MUSTIFIED CONTRACTOR ADDITIONAL ARRESTS OF THE ABOVE MUSTIFIED CONTRACTOR ADDITIONAL ARRESTS OF THE ABOVE THE A	THE THE SELLY APPLIES AND TO THE PROPERTY OF	PO AUENBUR peraled for received on the selectables peredong received on FALL po UATE SPEC of se made by syected OURS IT MOD THE CHANGET ECT THE ACMIT ALL THE ALL THE ACMIT ALL	THE OF SOURCE AND THE PRODUCT OF SOURCE OF SOU	PROPERTY OF THE TA			

TO NAME AND TITLE OF SIGNER Type or prod		THE NAME PAID THEE OF WHAT PACE AND OFFICER	Trace areared
Julie Jien, Cont	rach Officer	Shitrah	
118 CONTRACTORISFTEROX	TISC DATE SIGNED	TIED UNITED STATES OF AMERICA	19C DATE SIGNED
The state of the s	4Dec.12	Haral Hotel	5Dec12
NSN 7540-01-152-6970			DARLY CRU 30 (PEV 10-03) Bru by CSA

FAP (48 CF/8 51 245

1) The purpose of this modification is to revise the statement of work to incorporate the mutually agreed to (b) (4) implemented via Task Order #15 (b) (4)

(b) (4) As a result, the following language has been added to the contract's statement of work:

Current Contract

2.0 STANDARD RESUPPLY MISSION (CLIN 0001)

The Contractor shall perform the tasks necessary to execute all phases of the resupply mission per this SOW. The Standard Resupply Mission may consist of pressurized upmass delivery, unpressurized upmass delivery, secondary deployable payloads (PPODs), cargo disposal or cargo return. The Contractor shall provide the necessary services, test hardware and software, and mission specific elements required to integrate the cargo to the orbital and launch vehicle systems. The Contractor shall perform the required tasks to accomplish the resumply missions to and from the ISS. The Contractor shall provide the required eargo de-integration and return services, where applicable, to deliver cargo back to NASA. The standard external (unpressurized) upmass complement is identified in Attachment V.F.

After CRS Mission 2, the contractor will provide both the updated standard and extended trunk capability, in accordance with DRD C3-1, as part of the STANDARD resupply mission to accommodate large unpressurized ORUs and PPOD Deployables.

After CRS Mission 4, the contractor will provide an inventory to ensure readiness for the launch of a Small Adapter Plate Assembly (SAPA,) EXPRESS Pallet Adapter (ExPA,) or Columbus External Payload Adapter (CEPA) mounted Orbital Replacement Unit (ORU). To

Modified Contract

2.0 STANDARD RESUPPLY MISSION (CLIN 0001)

The Contractor shall perform the tasks necessary to execute all phases of the resupply mission per this SOW. The Standard Resupply Mission may consist of pressurized upmass delivery, unpressurized upmass delivery, secondary deployable payloads (PPODs), cargo disposal or cargo return. The Contractor shall provide the necessary services, test hardware and software, and mission specific elements required to integrate the cargo to the orbital and launch vehicle systems. The Contractor shall perform the required tasks to accomplish the resupply missions to and from the ISS. The Contractor shall provide the required cargo de-integration and return services, where applicable, to deliver cargo back to NASA. The standard external (unpressurized) upmass complement is identified in Attachment V.F.

(b) (4)

After CRS Mission 2, the contractor will provide both the updated standard and extended trunk capability, in accordance with DRD C3-1, as part of the STANDARD resupply mission to accommodate large unpressurized ORUs and PPOD Deployables.

(b) (4)

accommodate this provision, SpaceX will maintain in inventory one (1) SAPA to be used to launch a NASA defined ORU. LON manifest need dates, NASA deliverables and SpaceX analytical cycle is defined n the MIOMP (DRD C1-7).

The Government will maintain official property records in connection with Government property under this contract. The Government will deliver to the Contractor, for use in connection with and under the terms of this contract, the Government-supplied property described in Attachment V.K., together with such related data and information as the Contractor may request and as may be reasonably required for the intended use of the property (herein referred to as "Government-Supplied Property").

(b) (4)

After CRS Mission 4. the contractor will provide an inventory to ensure readiness for the launch of a Small Adapter Plate Assembly (SAPA.) EXPRESS Pallet Adapter (ExPA.) or Columbus External Payload Adapter (CEPA) mounted Orbital Replacement Unit (ORU). To accommodate this provision, SpaceX will maintain in inventory one (1) SAPA to be used to launch a NASA defined ORU. LON manifest need dates. NASA deliverables and SpaceX analytical cycle is defined n the MIOMP (DRD C1-7).

The Government will maintain official property records in connection with Government property under this contract. The Government will deliver to the Contractor, for use in connection with and under the terms of this contract, the Government-supplied property described in Attachment V.K., together with such related data and information as the Contractor may request and as may be reasonably required for the intended use of the property (herein referred to as "Government-Supplied Property").

2.4.3.2. LATE STOW CARGO

NASA will turn over the late stow cargo in accordance with the MIOMP (DRD C1-7). The Contractor shall perform all functions required to safeguard, stow, track and integrate the late stow cargo into the orbital vehicle. The Contractor shall document the

2.4.3.2. LATE STOW CARGO

NASA will turn over the late stow cargo in accordance with the MIOMP (DRD C1-7). The Contractor shall perform all functions required to safeguard, stow, track and integrate the late stow cargo into the orbital vehicle. The Contractor shall document the

late stow cargo for each mission within DRD C4-2, DRD C6-1 and DRD C6-4.

The Contractor shall accept NASA late stow unpowered cargo as late as L-3 days, late load cold bags as late as L-24 hours, and powered late load as late as L-12 hours, unless otherwise agreed upon and arranged by NASA and the Contractor.

The Contractor shall provide the capability for a mass simulator of items identified for late-load, allowing flexibility if the item does not meet the launch deadline. These items may include the direct mount, single or double locker equivalent payloads.

late stow cargo for each mission within DRD C4-2, DRD C6-1 and DRD C6-4.

The Contractor shall accept NASA late stow unpowered cargo as late as L-3 days, late load cold bags as late as L-24 hours, and powered late load as late as L-24 hours, unless otherwise agreed upon and arranged by NASA and the Contractor.

The Contractor shall provide the capability for a mass simulator of items identified for late-load, allowing flexibility if the item does not meet the launch deadline. These items may include the direct mount, single or double locker equivalent payloads.

2.4.7 CARGO RETURN AND/OR DISPOSAL

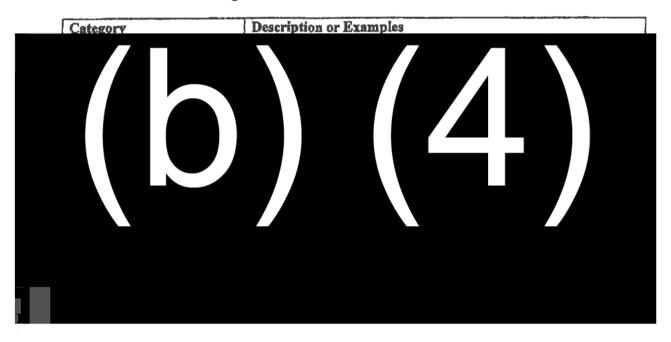
The Contractor shall return or dispose cargo per the return cargo complement identified prior to CIR or NLT L-5 months. The Contractor shall identify constraints to the on-orbit packing of cargo for return per the Final MRAD (DRD C6-4). NASA will maintain the capability to adjust the return cargo complement within the identified constraints while the orbital vehicle remains berthed to the ISS.

2.4.7 CARGO RETURN AND/OR DISPOSAL

The Contractor shall return or dispose cargo per the return cargo complement identified prior to CIR or NLT L-5 months. The Contractor shall identify constraints to the on-orbit packing of cargo for return per the Final MRAD (DRD C6-4). NASA will maintain the capability to adjust the return cargo complement within the identified constraints while the orbital vehicle remains berthed to the ISS. Starting with CRS Mission 2 and continuing through CRS Mission 12, the contractor shall provide waste disposal at the contractor cargo de-integration site for standard and hazardous waste cargo specified in Attachment V.O. Waste Cargo, Waste disposal is applicable to non-early access curgo only.

- 2) Add Attachment V.O. entitled Waste Cargo.
- 3) All other terms and conditions of NNJ09GA04B remain unchanged and in full force and effect.

Attachment V.O Waste Cargo



AMENDMENT OF SOLICITATION/MODIFI	ICATION OF CONTRACT	1. CONTRACT	D CODE	PAGE OF	PAGES
				1 1	4
P. PMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCH 4.2004/51.924	ASC REQ. NO.	5. PROJECT NO.	(п вружавіе)
0.00044 6. ISSUED BY COD	See Block 16C		If other than item 61	CODE LTGO	
ASA/Johnson Space Center Attn: RG / Sharan D. Loftor 2101 WASA Farkway Houston TK 77058-3696	7. ADMINISTERED BY (If other then lem 6) CCCC JSC NABA/Johnson Space Center Attn: BG / Sharan D. Lofton 2101 MASA Parkway Houston TK 77058-3696				
B. NAME AND ADDRESS OF CONTRACTOR (No., str	reat, county, State and ZIP Code)	(x) SA, AMENDMENT OF	F SOLICITATION NO.		
PACEX ROCKET RD LAWTHORNE CA 90250		GE DATED (SEE ITE	EAI 11)		
		x 164. MODIFICATION NNJ09GA04B	OF CONTRACTIOND	ER NO.	
COCE 3BAT8	FACILITY CODE	10B, DATED (SEE IT	EM 13) 12/23	1208	
	11. THIS ITEM ONLY APPLIES	TO AMENDMENTS OF SOLICE	TATIONS /		
CHECK ONE. A. THIS CHANGE CROSS IS ISSUED ORDER NO. IN ITEM 10A. B. THE ABOVE NUMBERED CONTR. appropriation date. etc.) SET FOR		ECT THE ADMINISTRATIVE C AUTHORITY OF FAR 43,103(b			
D. OTHER (Specify type of modificant		TO ACTION TO A			
X Clause II. A.L., NFG 18:		Funds (Fined-Price	Contract) His	r 1989)	
E. IMPORTANT: Contractor // Is not.			O copies to the is		
See Continuation Pages	f the document referenced in Item UA o	or 10A, as berefolors changed, i	remsins unchanged and	d in full force and effect.	
		Transfer and Train	OF CONTRACTING	OFFICER (Type or print)	
15A, NAME AND TITLE OF SIGNER (Type or print)	15C DATE SIGNE	Lauren N. Jo	hnson		. DATE SIGNED

NSN 7540-01-152-8070 Previous edition unusable GTANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243 The purpose of this modification is to:

- 1. Increase funds on this contract from (b) (4)
- Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):
 - Of the total price of CLINs 0001 through 0004, the sum of (b) (4)
 - (a) is presently available for payment and allotted to this contract.
 - (c)(1) It is contemplated that funds presently allotted to this contract will cover work to be performed until (b) (4)
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

II.A.2 NFS 1852.232-77 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (MAR 1989)

- (a) Of the total price of CLINs 0001 through 0004, the sum of the sum of the payment and allotted to this contract. It is anticipated that from time to time additional funds will be allocated to the contract as required by the payment schedule in Clause II.A.6, until the total price of said CLINs is allotted.
- (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 Section II, Clause 52.212-4(l). Termination for the Government's Convenience, of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1. 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 contract Section II, Clause 52.212-4(l) notwithstanding.
- (c) Reserved.
 - (1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
 - (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 sixty (60) days the work will reach a point at which, if the contract is terminated pursuant to contract Section II, Clause 52.212-4(I) of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(I) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1.
 - (3) Reserved.
 - (i) The notice shall state the estimate when the point referred to in paragraph I(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, sixty (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 contract Section II, Clause 52.212-4(1).
- (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(s) (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 Termination for Cause 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 contract Section II, Clause 52.212-4(l).

(End of clause)

AMENDMENT OF SOLICITATION/MC	DISICATION OF CONTRACT	1. CONTRACT ID CODE	PAGE OF PAGES				
			1 6				
2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (if applicable)				
000045 e. ISSUED BY	See Block 16C	7. ADMINISTERED BY (If other than Item					
NASA/Johnson Space Cente Attn: BG / Sharan D. Lof 2101 NASA Parkway Nouston Th 77058-3696		Attn: BG / Sharan D. 2101 NASA Parkway	NASA/Johnson Space Center Attn: BG / Sharan D. Leiton				
O WALLS AND ADDRESS OF COUTRACTOR OF	- 1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	9A. AMENDMENT OF SOLICITATION	NO				
8 NAME AND ADDRESS OF CONTRACTOR M	lo., Street, County, State 6/3 ZIP (1006)	(x) SA AMENDMENT OF SOCIOTATION					
SPACEX		68. DATED (SEGITEM 11)					
ROCKET RD LAWTHORNE CA 90250		os. on tes (out it air vy					
DARTHORNIA CA JULIO		10A. MODIFICATION OF CONTRACT	(ORDER NO				
		NNJ09GA04E	TOTAL TITO				
		10B. DATED (SEE ITEM 13)					
CODE 3EAT8	FACILITY CODE	12/23/2008					
The above numbered solicitation is amended		IES TO AMENDMENTS OF SOLICITATIONS	is satended. It is not extended.				
virtue of this amendment you deere to change to the solicitation and this aroundment, and is 12, ACCOUNTING AND APPROFERITION DAT	an offer ulready submitted, such chang received prior to the opening hour and o	R AND DATE SPECIFIED MAY RESULT IN REJECT ge may be made by telegram or letter, provided each date specified. Net Increase:	(b) (4)				
See Schedule	S TO MODIFICATION OF CONTRACT	S/ORDERS. IT MODIFIES THE CONTRACT/ORDER	NO. AS DESCRIBED IN ITEM 14.				
ACTION COMPANY AND ACTION COMPAN							
CHECK ONE A. THIS CHANGE ORDER IS IS ORDER NO. IN ITEM 16A.	SUED PURSUANT TO: (Specify author	rity) THE CHANGES SET FORTH IN ITEM 14 ARE	MADE IN THE CONTRACT				
B. THE ABOVE NUMBERED CO appropriation data, etc.) SET	ONTRACT/ORDER IS MODIFIED TO R FORTH IN ITEM 14, PURSUANT TO	EFLECT THE ADMINISTRATIVE CHANGES (such a THE AUTHORITY OF FAR 43 103(b).	is changes in paying office,				
G. THIS SUPPLEMENTAL AGR	EEMENT IS ENTERED INTO PURSUA	INT TO AUTHORITY OF:					
b. O'thER /Specify type of mod	ification and authority)						
X Clause II. A.2., NEC	1692-232-77, Limitation	of Funds (Fixed-Price Contract)	(War 1959)				
with with the contract of the	s not, is required to sign this doc.		the issuing office				
	ATION (Organized by UCF section hea	acings, including solicitation/contract subject matter w	mere (casib'a.)				
See continuation page							
		OA as 10A as hardefore shanned complete with the	and in full force and effect.				
Except as provided herein, all terms and cond?		9A or 10A, as heretofore changed, remains unchang	TING OFFICER (Type or print)				
13M. WARNE AND THE OF GIGNER (TYPO OF L	neny	Sharan D. Lofton	race to see recover the least to the latter as a constitution of 1245 valls				
	Lee a a		16C, DATE SIGNED				
15B CONTRACTOR/OFFEROR	15C. DATE SI	Walle Of AMERICA	ton 02/04/2013				
(Signature of person authorized to sign	.)	(Signature of Confraction)	(fizer)				
NSN 7543-01-152-2070		U	STANDARD FORM 30 (REV. 10-83) Prescribed by GSA				
Previous adition unusable		7	FAR (48 CFR) 53.243				

The purpose of this modification is to:

- 1. Increase funds on this contract from (b) (4)
- Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):

Of the total price of CLINs 0001 through 0004, the sum of (b) (4)

- (a) is presently available for payment and allotted to this contract.
- (c)(1) It is contemplated that funds presently allotted to this contract will cover work to be performed until (b) (4)
- Revise Attachment V.M., Special Task Assignments and Studies, Sub-CLIN Schedule for CLIN 0003.
- 4. Replacement pages are provided herein.
- 5. All other terms and conditions remain unchanged and in full force and effect.

II.A.2 NFS 1852.232-77 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (MAR 1989)

- (a) Of the total price of CLINs 0001 through 0004, the sum of 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 as required by the payment schedule in Clause II.A.6, until the total price of said CLINs is allotted.
- (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 Section II, Clause 52.212-4(l), Termination for the Government's Convenience, of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1. 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 contract Section II, Clause 52.212-4(l) notwithstanding.
- (c) Reserved.
 - (1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
 - (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 sixty (60) days the work will reach a point at which, if the contract is terminated pursuant to contract Section II, Clause 52.212-4(1) of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(1) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1.
 - (3) Reserved.
 - (i) The notice shall state the estimate when the point referred to in paragraph I(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, sixty (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 contract Section II, Clause 52.212-4(1).

- (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(s) (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 Termination for Cause 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 contract Section II, Clause 52.212-4(l).

(End of clause)

Attachment V.M. SPECIAL TASK ASSIGNMENTS AND STUDIES SUB-CLIN SCHEDULE FOR CLIN 0003

This Sub-CLIN Schedule provides contract details for task orders issued under CLIN 0003.

SUB- CLIN	TASK ORDER	REVISION	DATE	DESCI	RIPTION	PRICE	
0003AA	-2	BASIC	4/20/2009				
0003AB	3	BASIC	12/24/2009				
0003AB	3	A	1/13/2010	O		4	
0003AB	3	В	4/07/2010				
0003AB	3	С	6/29/2010				
0003AC	4	BASIC	1/25/2010				
0003AC	4	Λ	6/02/2010				
0003AC	6	BASIC	09/27/2010				
0003AC	7	BASIC	03/22/2011				
0003AC	8	BASIC	06/17/2011				
0003AC	9	BASIC	07/21/2011				
0003AC	10	BASIC	10/14/2011				
0003AC	11	BASIC	08/24/2011				
0003VC	11	A	10/26/2011				
0003AC	12	BASIC	11/28/2011				
0603AC	13	BASIC	12/13/2011				
0003AC	14	BASIC	01/12/2012				
0003AB	3	CI	06/28/2012				

Page | 154

Modification 45

0003AC	12	Λ	08/14/2012	/ _ \	/ / \
0003AB	3	B2	08/20/2012		141
0003AC	15	BASIC	12/6/2012		\/
0003AC	16	BASIC	12/3/2012		\ - /
0003AB	3	B3	12/14/2012		
				TOTAL	(b) (4)

AMENDMENT OF SOLICITATION/MO	DIFICATION OF CONTRACT	1. CONTRACT ID CODE	PAGE OF PAGES
2 AMENDMENT/MODIFICATION NO	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
0.0043		THE CONSTITUTE OR OR NOT REQ. NO.	A PROJECT NO. (IT SPRICELIE)
The state of the s	See Block 16C	7. AT MINISTERED BY (If other than Jem 6)	CODE JSC
NASA/Johnson Space Cente Attn: PG / Henia Yasquez 2101 NASA Farkway Rouston TX 77058-3696	r	NASA/Johnson Space Center Attn: HG / Henia Vesquez 2101 NASA Parkway Houston TM 77058-3696	U.S.,
B. NAME AND ADDRESS OF CONTRACTOR (N BEACE): ROCKET RD FAWTHORNE CA 90250	street, county, State and ZIP Code;	90. DATED (SEE ITEM 11) 10.4. MODIFICATION OF CONTRACT/ORDER NO. 2013/10/2006/ADJAB	
		108. CATED (SEE ITEM 10)	
CODE 3BVL8	FACILITY CODE	02/26/2009	
	11. THIS ITEM ONLY APPLIES T	O MENDMENTS OF SOLICITATIONS	
CHECK CIMIS A THIS CHANGE ORDER IS ISS ORDER NO. IN ITEM 10A B. THL ABOVE NUMBERED COS appropriation date, etc.) SET F	UED PURSUANT TO: (Specify authority) T	DERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE C1. THE ADMINISTRATIVE CHANGES (such as changes in UTHORITY OF FAR 13.103(h).	E CONTRACT
X	EMENT IS ENTERED IN TO PURSUANT TO		
D. CTHER (Specify type of modific	ration and outricity)		
. IMPORTANT: Contracte: / is r	not. is required to sign this decument	and return copies to the issuing of	office.
14. DESCRIPTION OF AMENDMENT/MODIFICA		including solicitation/contract subject matter where feasible	
the purpose of this modification to American Vaughn		Buyer to Kenia Vasquez and char	ige Contracting
ayment Terms:			
et 3 days			
Except as provided hereic, all terms and conditions SA. NAME AND TITLE OF SIGNER (Type or print)		10A as histologic changed, remains unchanged and in tuil f	orce a iJ c″est. R (Type ur print)
		Aneesah K. Yaughn	
58. CONTRACTOP/OFFL.ROR	15C. DATE SIGNED	189 UNITED STATES OF AMERICA	16C, DATE SIGNED
(Signature of person enthroling to sign)		(Signature of Cont. solling (Affices)	

STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 52.243

		DIFICATION OF CONTRACT	1. CONTRACTIL CODE PAGE OF PAGES
2 AM NO ME	A CONTRACTOR OF THE CONTRACTOR		1 4
	NTIMODE CATION NO.	3. EFFECTIVE DATE	4 REQUISITION/PURCHASE REQ. NO. 5, PROJEST NO. (If applionible
050047 5. SSUED BY		ODE TOO	
5. 25UEU B	·	JSC JSC	
Attn: D 2101 NA	hnsen Space Center C / Kenia Vasquez SA Parkway TX 77058-3696		NASA/Johnson Space Center Attn: BG / Kenin Vasquez 2101 NASA Parkway Houston TV 77058-3696
MAM AND	ADDRESS OF CONTRACTOR (Nº	sires, county, State and AP Garle)	(x) PALAMENDMENT OF SOLICITATION NO.
PACEX FOCKET FAWTHORN	' NO TE CA 90250		S2 DATED (SEE ITEM 11)
			EM MODIFICATION OF CONTRACT/ORDER NO.
			10B. DATED (SEE ITEM 13)
CCDF 35	VIA	FACILITY CODE	02/25/2009
Offers must thems 8 s.r.d supported less THE PLACE virtue of this to the notice?	ecknumedge receipt of mis emendin 14., and returning ter or lelegram which includes a rate I DESIGNATED FOR THE REUGIPT amondment you desire to change e	sot forth in Nen. 14. The frour end de nent prior to the hour and dete opecific copies of line amendment, (b) By a varies to the solicitation and amendment of the OFFERS PRIOR TO THE KOUP or ofter aready submitted, such chang ceived grick to the opening hour and of	ed in the spinstation or as attended, by one of the following methods, (a) By completing administrating receipt of this subendment on each copy of the offer submitted, or (b) By entinumbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE REGENED AT R AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by ge may be made by telegram or inter, provided each telegram or letter makes reference
Offers must literas 8 s.r.d supported let THE PLACE virtue of this to the notice?	acknowledge receipt of this amending to an elegant which includes a rate pession TER TO THE RECEIPT amendment you desire to change eation and this promotional, and is at ING AND APPROPRIATION DATA. 13. THIS ITEM ONLY APPLIES	sot forth in Ren. 14. The hour and date opcoling to the hour and date opcoling copies of the amendment, (b) By a verified to the solidation and amendment OF OFFERS PRIOR TO This MOUR of other dready submitted, such other product are also used prior to the opening from and officeracy. TO MODIFICATION OF CONTRACTS	to openfied for record of Offers. It is extended, it is not extended, ed in the solicitation or as amended by one of the following methods. (a) By completing acknowledging receipt of this extendency on each copy of the offer submitted, or (b) By entitlement of the extended of the offer submitted, or (c) By entitlements. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT RAND DATE SPECIFICO MAY RESULT IN REJECTION OF YOUR OFFER. If by emay be made by telegram or letter, provided each telegram or letter makes reference talls specified. Not. Indicase: (b) (4) STORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.
Offers must lite has 8 s.r.d supported less THE PLACE virtue of this to the notice?	acknowledge receipt of this amending to an elegant which includes a rate pession TER TO THE RECEIPT amendment you desire to change eation and this promotional, and is at ING AND APPROPRIATION DATA. 13. THIS ITEM ONLY APPLIES	sot forth in Ren. 14. The hour and date opcoling to the hour and date opcoling copies of the amendment, (b) By a verified to the solidation and amendment OF OFFERS PRIOR TO This MOUR of other dready submitted, such other product are also used prior to the opening from and officeracy. TO MODIFICATION OF CONTRACTS	ate specified for record of Offices. It is extended, it is not extended, and in the solution of as an ended by one of the following methods. (a) By completing acknowledging receipt of this albendment on each copy of the offer submitted, or (b) By cent numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT IR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by ge may be made by telegram or letter, provided each telegram or letter makes reference tale specified. Not, Increase:
Offers must literal 8 and separate let THE PLACE virtue of this to the solic?	acknowledge receipt of this emending and reluming for or foliogram which includes a race to responsible to the foliogram which includes a race of the foliogram which includes a race after and this unundiment, and is realling and arthur months in the realling and arthur months in the real and this trem only applies. 13. THIS TIEM ONLY APPLIES A THIS CHANGE ORDER IS ISSUED A THIS CHANGE ORDER IS ISSUED A THIS APOVE NUMBERED COM- appropriation date etc. 3ET F	set forth in Ren. 14. The hour end de- nent prior to the hour and dete opecific cupies of the amendment, (b) By a remose to the solicitation and emendment. OF OFFERS PRIOR TO This MOUP or other arresply submitted, such chang- ceived prior to the opening from and of (If required) TO MODIFICATION OF CONTRACTS in DIFURSUANT TO (Specify author	the openified for record of Offers. It is extended, it is not extended, and in the solution or as an ended by one of the following methods. (a) By completing acknowledging reneight of this amendment on each copy of the offer submitted, or (b) By entitlembers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT A NAD DATE SPECIFICD MAY RESULT IN REJECTION OF YOUR OFFER. If by the made by telegram or tetter, provided each telegram or letter makes reference tale specified. Not. Indicase: (b) (4) BY THE CHARGES SET FORTH IN ITEM 14 ARL MADE IN THE CONTRACT EPLECT THE ADMINISTRATIVE CHARGES (both as changes in paying office inter AUL MORTLY OF FAR 13 103(b).
Offers must literal 8 and separate led THE PLACE Virtue of this to the solic? ACCCUM?	acknowledge receipt of this emending and reluming for or foliogram which includes a race to responsible to the foliogram which includes a race of the foliogram which includes a race after and this unundiment, and is realling and arthur months in the realling and arthur months in the real and this trem only applies. 13. THIS TIEM ONLY APPLIES A THIS CHANGE ORDER IS ISSUED A THIS CHANGE ORDER IS ISSUED A THIS APOVE NUMBERED COM- appropriation date etc. 3ET F	sot forth in Nen. 14. The hour end de- nent prior to the hour and deteropecific cupies of the amendment, (b) By a varies to the solicitation and amendment. TOP OFFERS PRIOR TO THE HOUP or other aready submitted, such chang obtained prior to the opening from and of (If required). TO MODIFICATION OF CONTRACTS and PURSUANT TO (Specify surfront ONTH IN ITEM ME PURSUANT TO TO MENT IN TEM ME PURSUANT TO TO MENT IN TEM ME PURSUANT TO TO	the openified for record of Offers. It is extended, it is not extended, and in the solution or as an ended by one of the following methods. (a) By completing acknowledging reneight of this amendment on each copy of the offer submitted, or (b) By entitlembers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT A NAD DATE SPECIFICD MAY RESULT IN REJECTION OF YOUR OFFER. If by the made by telegram or tetter, provided each telegram or letter makes reference tale specified. Not. Indicase: (b) (4) BY THE CHARGES SET FORTH IN ITEM 14 ARL MADE IN THE CONTRACT EPLECT THE ADMINISTRATIVE CHARGES (both as changes in paying office inter AUL MORTLY OF FAR 13 103(b).
Offers must literal 8 and separate lead THE PLACE value of this to the solic? CHECK OTH: X	acknowledge receipt of this emending and reluming for or folightern which includes a race. Designer tellogrem which includes a race and the property of the receipt amortidinent you desire to change a ation and this unundiment, and is realling and arthur property. The APPROPRIATION DATA 13. THIS THEM ONLY APPLIES A THIS CHANGE ORDER IS ISS. ORDER NO. IN ITEM 10A. 5. THE APPLIE NUMBERED COMMON CONTROL OF THE APPLIES OF THE	sot forth in Ren. 14. The hour end de- nent pilor to the hour and date opecific cupies of the amendment, (b) By a remose to the solicitation and amendment of POPERS PRIOR TO THE KOUP of other directly submitted, such chang- ceived prior to the opening hour and of (If required) TO MODIFICATION OF CONTRACTS THE OF THE SUBMITTED TO RE OWNER THE STREET OF PURSUANT TO T IMENT IS ESTEPPED OF PURSUANT TO THE AMENDMENT OF PURSUANT TO THE STREET OF PURSUANT TO THE	the openified for record of Offers. It is extended, it is not extended, and in the solution of as an ended by one of the following methods. (a) By completing exhausted or each open of the offer submitted, or (b) By entitle on the solution of the offer submitted, or (c) By entitle of the provided and the offer submitted, or (c) By entitle of the offer of the offer submitted, or (c) By entitle of the offer of the offer submitted, or (c) By entitle of the offer of the off
Offers must literal 8 and separate led THE PLACE Virtue of this to the solic? ACCCUM?	acknowledge receipt of this amending to an integral which includes a rate personal p	sot forth in Ren. 14. The hour end de- nent prior to the hour and dete opecific cupies of the amendment, (b) By a remose to the sot station and emending TOP OFFERS PRIOR TO THIS ROUP of other directly submitted, such change celluid prior to the opening from and of (If required) TO MODIFICATION OF CONTRACTS IN DIFFURSIANT TO (Specify author of the prior	ate specified for record of Offices I is extended, is not extended, and in the solution or as animated by one of the following methods. (a) By completing acknowledging receipt of his extended by one of the following methods. (a) By completing acknowledging receipt of his extended by one of the following methods. (a) By entitledging receipt of his extended of the following methods. (b) By entitledging receipt of his extended of the following received at a RAND DATE SPECIFIC MAY RESULT IN REJECTION OF YOUR OFFER. If by ge may be made by telegram or tellor, provided each telegram or letter mekas reference bette specified. Not, Indicase: (b) (4) BY THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT EFFECT THE ADMINISTRATIVE CHANGES (such as changes in paying office the AUTHORITY OF FAR 43 103(b). INTER AUTHORITY OF FAR 43 103(b).

Except as provided herein, all terms and conditions of the document refere ced in tiem 6A or 10A, as heretofore this took, numbers unchanged and in full force and effect.

15A, NAME AND TITLE OF SIGNER (Type or print)

15A, NAME AND TITLE OF CONTRACTING OFFICER (Type or print) IGA. NAME AND TITLE OF S.GNER (Type or print) Anessah K. Paugha 16C. DATE SIGNED 150. CONTRACTUTIOFFEROR 15C. DATE SIGNED esch K. Vally isometing crices STANDARD FORM SO (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243 (Signature of preson euthorized to vign)

NSN 7540-C1-152-80, 0 Previous adition situatable

- 1. Increase funds on this contract from (b) (4)
- Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):

Of the total price of CLINs 0001 through 0004, the sum o

- (a) is presently available for payment and allotted to this contract.
- (c)(1) It is contemplated that funds presently allotted to this contract will cover work to be performed until (b) (4)
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

II.A.2 NFS 1852.232-77 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (MAR 1989)

- (a) Of the total price of CLINs 0001 through 0004, the sum of 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 as required by the payment schedule in Clause II.A.6, until the total price of said CLINs is allotted.
- (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 Section II, Clause 52.212-4(1), Termination for the Government's Convenience, of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(1) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II A.6-1. 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 contract Section II, Clause 52.212-4(1) notwithstanding.
- (c) Reserved.
 - (1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)
 - (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 sixty (60) days the work will reach a point at which, if the contract is terminated pursuant to contract Section II, Clause 52.212-4(l) of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1.
 - (3) Reserved.
 - (1) The notice shall state the estimate when the point referred to in paragraph I(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, sixty (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 contract Section II, Clause 52.212-4(l).

- (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(s) (including appropriate target, billing, and ceiling prices where applicable) of the items to be delivered, or in the time of delivery, or both.
- (i) 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 Termination for Cause 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 contract Section II, Clause 52.212-4(1).

(End of clause)

AMENDMENT OF SOLICITATION/MC	DIFICATION OF CONT	RACT	1, CONTRACT ID CODE	PAGE OF PAGES
, ANTINDMENT/MCDIFICATION NO.	3. EFFECTIVE DAT	Ē 4.1	REQUISITION PURCHASIS REQ. NO.	5. PROJECT HO. (If applicable)
VI0047	08/25/2013			
. ISSUEN BY	COUE J.C		ACIMINISTERED BY (" other than flore b)	CODE
lasa, Johnson Space Cente Lth: BG / Kenia Vacquez 101 MASA Parkway Louston TX 77058-3696				
NAME AND ADDRESS OF CONTRACTOR (No., street, centy, State and ZB* C	adet (x)	SA. AMENDICENT OF SOLICITATION NO.	
FACEX -ROCKET FD AWTHOPMS CA 20250			98. DATED (SEE ITEM 11)	
AWINOPHS IA 30130		5.	10A MODIFICATION OF CONTRACT/ORD	ER NO.
		5	105. DATED (SEE ITEM 13)	
ODE SETTE	FACILITY CODE		123/2004	
	11. THIS ITEM OF	NLY APPLIES TO AME	NOMENTS OF SOLICITATIONS	
B. THE ABOVE NUMBERED C spor prodoci date, etc.) 95	CONTRACT/ORDER IS MODIFY FOR THIS INTENT 14, PURSU	IED TO REFLECT TH ANT TO THE AUTHO	IANGES SET FORTH IN ITEM 14 ARE MADE E ADMINISTRATIVE CHANGES (such as cha RITY OF FAR 45, 103(b).	
C. THIS SUPPLEMENTAL AG	NEWMENT IS ENTERED INTO	PUR JUART TO AUT	OR ITY OF:	1-1
D. OTHER (Specify type of mo	differion and authority)			
E, IMPORTANT. Contractor X	is not, is required to sig	n this document and re	turn copies to the	issuing office.
14. DESCRIPTION OF AMENDMENT, MODIFIE The purpose of this modified the control of	ification is to	correct an	ling solicitation/southed subject intiller where error on the page 2 of	Mod 47
Except as provided herein, all terms and cond 15A. NAME AND TITLE OF SIGNER (Type or	ilions of the document reference		meeinh K. Vaughn	OFFICER (Type or plint)
15B, CONTRACTOR/OFFEROR	150	DATE SIGNED	HER UNITED STATES OF AMERICA	18C. DATE SIGNED 08/28/2013
(Si mate : of per and on naved to an	· · ·	1	(Signature of Cr. Justing Officer)	

STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (40 CFR) 63.343

- 1. Increase funds on this contract from (b) (4)
- Accordingly, Clause II.A 2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):

Of the total price of CLINs 0001 through 0004, the sum of (b) (4)

- (a) is presently available for payment and allotted to this contract.
- (c)(1) It is contemplated that funds presently allotted to this contract will cover work to be performed until (b) (4)
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

II.A.2 NFS 1852.232-77 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (MAR 1989)

- (a) Of the total price of CLINs 0001 through 0004, the sum of \$687,579,745.22is 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 as required by the payment schedule in Clause II.A.6, until the total price of said CLINs is allotted.
- (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 Section II, Clause 52.212-4(1), Termination for the Government's Convenience, of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(1) would equal the amount retained by the Contractor pursuant to Clause II.A 5 and Table II.A.6-1. 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 contract Section II, Clause 52.212-4(1) notwithstanding.

(c) Reserved.

(1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until (b) (4)

(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 sixty (60) days the work will reach a point at which, if the contract is terminated pursuant to contract Section II, Clause 52.212-4(l) of this contract, the total amount payable by the Government pursuant to contract Section II, Clause 52.212-4(l) would equal the amount retained by the Contractor pursuant to Clause II.A.6 and Table II.A.6-1.

(3) Reserved.

- (i) The notice shall state the estimate when the point referred to in paragraph I(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, sixty (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 contract Section II, Clause 52.212-4(1).

- (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(s) (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 Termination for Cause 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 contract Section II, Clause 52.212-4(l).

(End of clause)

2. AMENDIAE 000047		DIFICATION OF CONTRACT	ş-	
100048	NI/NOD FICATION NO.	3. EFFECTIVE DATE	4. REQUISITION FURCHASE REG. NO.	ö. PRUJEL [NO (if epolicable)
		05/31/2013	111	
ISSUED BY		CODE USC	7. ADMIN'STEREO BY (if other than kein a)	CCDE
ttn: B	chasen Space Cente 64 / Kenie Yasquez 65 Parkvay 6 TM 17058-3696			
NAME A ID	ADDRESS OF CONTRACTOR (A	lo, street, coming State and Z.P.Code)	(x) THE AMENDMENT OF SOLICITATION NO.	· · · · · · · · · · · · · · · · · · ·
PACEX				
ROCMET	ר אט		93. DATED (SLETTLAS (1)	
ARTHORI	NE 7% 9015C			
			HIGH THE PROPERTY OF THE PROPE	NO.
			1	
			108 DATED (SFE ITEM 13)	
DODE 38	3/ 78	FACILITY CODE	12/25/2008	19
		11. THIS ITEM UNITY APPLIES	TO AMENDMENTS OF SOLICITATIONS	
CHECK DAE	A. THIS CHANGE CROER IS IS: ORDER NO. N. TEW IDA.	SUED PURSUANT TO: (Specify authority)	THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN FOT THE ADMINISTRATIVE CHANGES (such as change AUTHORITY OF PAR 43, 10(16).	THE CONTRACT
		EEMENT S ENTERED INTO PURSUANT T		
	D OTHER (Specify type of modi	fication and authority)		
35			mids (girid-Perce Continet) (Mir	198-,
10.70		not, is required to sign this documen		
. IMPORTAN		A TOTAL CO. CO. CO. CO. CO. CO. CO. CO. CO. CO.	s, including splicitation contract subject matter where here	(h/c)
. IMPORTAN	TION OF AMENDMENT MODIFICAL	ATION for the test by Och seaton heading		
IMPORTAN		ATION (On the test by Och section heading		
Except as provided A. NAME AN	tinuation pages.	ns of the document reistrepoid in Itam 9A or	in 10A, as herelofore changed, remains uncharged and in 18A, NAME AND TITLE OF CONTRUCTING OFF An access of the Upper Section 18A, 18A, 18A, 18A, 18A, 18A, 18A, 18A,	(v fu⊪for⊪a and effact.
EXCEPT AS PROSE	vided herein, witerms and condition	ns of the document retainened to Itam 94 ce	Fig. 10A, as herelofore changed, remains uncharged and in 15A. NAME AND TITLE OF CONTRUCTING OFF AN AUGAD K. Yougho	tu≣ for⊪a and effect. ICER (Tyrse or print)

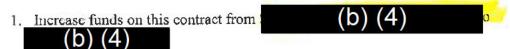
STANDARD FORM 30 (REV. 10-93) Prescribed by GSA FAR (45 CFR) 53.2+3

- 1. Increase funds on this contract from \$ (b) (4)
- 2. Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):

Of the total price of CLINs 0001 through 0004, the sum of (b) (4)

- (a) is presently available for payment and allotted to this contract.
- (c)(1) It is contemplated that funds presently allotted to this contract will cover work to be performed until (b) (4)
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

	DIFICATION OF CONTRACT		1 1 2
AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISIT: ON/PUNCHAGE REQ. NO.	5. PROJECT NO. (If applicable)
000049	06/11/2013	4200478933	
ISSIJED BY	CODE USC	7, ADMINISTERED BY (If other than Item 6)	CODE
9ASA/Johnson Space Center Mith: BG / Kenie Vasques 2101 KASA Farkway Houston TX 77056-3696	e		
NAME AND ADDRESS OF CONTRACTOR (M	o, street county, State and TIP Code)	(x) 3A, AMENTMENT OF SOCIOITATION NO.	
PACEX			
ROCKET RD		9B. DATED (SEE IT SM 11)	
AWTHORNE CA 90250			Paula
		× 10A, MODIFICATION OF CONTRACT/ORD NEW C 9GA 0 4B	ER NO.
		10B. DATED (SFE ITEM 12)	
CODE 3BV B	FACILITY CODE	12-123/2008	
	11. PHIS ITEM ONLY APPLIE		
THE PLACE DESIGNATED FOR THE RECEIF virials of this amendment you disting to phange to the socialization and this amendment, and is not reconstructed and APPROPRIATION DATA	an offer already submitted, such change received prior to the opening nour and da	AND DATE SPECIFIED MAY RESULT IN REJECTION Of may be made by telegram or letter, provided each telegram specified. Not: Increase:	em or letter makes reference
See Schedule			() ()
13. THIS ITEM ONLY APPLIE	S TO MODIFICATION OF CONTRACTS/	OKDERS. IT MODIFIES THE CONTRACT/ORDER NO. A	S DESCRIBED IN ITEM 14.
8, THE ABOVE NUMBERED CO *ps/opristion side, atc.) SET		y) THE CHANGES SET FORTH IN ITEM 14 ARE MADE FLECT THE ADMINISTRATIVE CHANGES (soul) as cha LE AUTHORNY OF FAR 43.103(h).	
D. OTHER (Special type of medi			
y Clause II. A.2., MFS	1053-232-77, Limitation	of Vanda (Fixed-Price Contract) (Ma	<u> </u>
A CONTRACT AND AND AND AND AND AND AND AND AND AND		nent and return U copies to the S	ssuing office.
E. IMPORTANT: Contractor % le	not, is required to one this docum	was to traine and all the complete subject metter where	fe: ituis)
E. IMPORTANT: Centractor % le 14, DESCRIPTION OF AMENDMENT/MODIFIC		ings, including solizitation/confract subject matter where	feculible.)
E. IMPORTANT: Contractor % le		ings, in: luding solizituti arvoontract subject matter whora	fecuithic.)
E. IMPORTANT: Centractor % le 14. DESCRIPTION OF AMENUMENT/MODIFIC		ings, including solicitation/confract subject matter whore	fe.::ible.)
E. IMPORTANT: Centractor % le 14. DESCRIPTION OF AMENUMENT/MODIFIC		ings, including solizitation/confract subject matter whore	fe.::tb/e.)
E.IMPORTANT: Centractor K to 14.DESCRIPTION OF AMENUMENT/MODIFIC See Continuation page	ATION (Organized by UCF section head	A or 10A, as heretolone changed, reme≒is unchanged an	d in tull force and offect .
E. IMPORTANT: Contractor Kitch 14. DESCRIPTION OF AMENUMENT/MODIFIC Sea Continuation page Except as provided herein, all terms and condition	ens of the document referenced in Item 2	A or 10A, as heretofore changed, remains unchanged an	d in tull force and offect .
E.IMPORTANT: Centractor R to 14. DESCRIPTION OF AMENUMENT/MODIFIC See Continuation page	ens of the document referenced in Item 2	A or 10A, as heretofore changed, remains enchanged an 16A, NAME AND THILE OF CONTRACTING Anecsah K. Vangrin	d in full force and effect. OFFICER (Type or pr.:11)
E. IMPORTANT: Contractor Kitch 14. DESCRIPTION OF AMENUMENT/MODIFIC Sea Continuation page Except as provided herein, all terms and condition	ens of the document referenced in Item 2	A or 10A, as heretofore changed, remains unchanged an 16A, NAME AND THILE OF CONTRACTING ARECSAN K. Valighin	d in full force and effect. OFFICER (Type or pr.11) 16C. DATE S.GNED
E. IMPORTANT: Centractor	ens of the document referenced in item 2	A or 10A, as heretofore changed, remains enchanged an 16A, NAME AND THILE OF CONTRACTING Anecsah K. Vangrin	d in full force and effect. OFFICER (Type or pr.:11)



 Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed - Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):

Of the total price of CLINs 0001 through 0004, the sum of (b) (4)

- (a) is presently available for payment and allotted to this contract.
- (c)(1) It is contemplated that funds presently allotted to this contract will cover work to be performed until (b) (4)
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

AMENDMENT/MODIFICATION NO.			4 6
60050	3. EFFECTIVE DATE	4 REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
	06/12/2013	4200438556 % 4200441747	
issued by con ASA/Johnson Space Center tin: BG / Kemia Vasquez 101 NASA Parkway custon TX 77058-3696	JSC JSC	7. ADMINISTERED BY (If other than flom 6)	CODE
NAME AND ADDRESS OF CONTRACTOR (100.	rout, county, State and ZIP Costs)	(x) SA. AMENDMENT OF SOLICITATION NO	l.
PACEX ROCKET RU AWTHORNE CA 90250		98. DAYED (SEE ITEM 11) 10A. MODIFICATION OF CONTRACTION X PRIJO 3-JA 0-4/3	DER NO.
		ICD. DATED (SEE ITEM 13)	
ODE 3BTL8	FACILITY CODE	12-12-31 2003	
	11. THIS ITEM ONLY APPLIE	S TO AMENDMENTS OF SOLICITATIONS	
THE PLACE DESIGNATED FOR THE RECEIPT virtue of this amendment you casing to change an to the solicitation and this amendment, and is reco. A ACCOUNTING AND APPROPRIATION CATA (OF OFFERS PRIOR TO THE HOUR offer already submitted, such change gived prior to the opening hour and da	nt numbers. FAILURE OF YOUR ACKNOWLEDGEME AND DATE SPECIFIED MAY RESULT IN REJECTION Is may be made by tulogram or letter, provided each tole ale specified. Not Decreuse:	OF TOOK OFFER ILLY
ee Schedule	O MODIFICATION OF COURT (CTO)	ORDERS. IT MODIFIES THE CONTRACT/ORDER NO.	AS DESCRIBED IN ITEM 14.
C. THE SUPPLEMENTAL ACREE!	MENT IS ENTERED NICHPURSUAN		
K Clause II. A.S., NFS 1		Fands (Fixed-Price Contract) (is issuing office.
IMPORTANT: Contractor 8, is not A DESCRIPTION OF AMENDMENT/MODERCAT BE CONTINUE TION PAGE.		tings, including solicination/convect subject matter who	re feaciále.)
	œ.		
	(K)		
	er.	A at 40A as bareleling objection company company tracking and	and in kell force and affect.
Except as provided hercin, all terms and conditions	of the document referenced in item a	sA or 10A, as heretofore change:, romains unchanged	and in Ivil (croe and offect. G OFFICER (Type or print)
Except as provided hercin, all terms and conditions 15A NAME AND TITLE OF SIGNER (Type or mich	of the document referenced in them a	A or 10A, as heretofore changed, remains unchanged 18A, NAME AND TITLE OF CONTRACTIN Ansessab, K., Vaughn	and in tull torce and offect. G OFFICER (Type or print)
Except as provided hercur, all terms and conditions 15A NAME AND TITLE OF SIGNER (Type or print) 16B, CONTRACTOR OFFEROR (Signature of person authorized to sign)	of the document referenced in them a	Ansesah K. Vaughn	160, DATE SIGNED

- 1. Reduce funds on this contract from (b) (4)
- Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):

Of the total price of CLINs 0001 through 0004, the sum o (b) (4)

- (a) is presently available for payment and allotted to this contract.
- (c)(1) It is contemplated that funds presently allotted to this contract will cover work to be performed until (b) (4)
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

	CATION OF CONTRACT		1. CONTRAUT ID CODE		F PAGES
. 4 MENDMENT/MODIFICATION NO.	13. EFFECTIVE DATE		ISITION/PURCHASE REG. NO.	5. PROJECT NO). (if applicable)
			192323		
DOCO51 INSUEDBY COD	07/11/2013 E JSC	7. ADM	NISTERED BY (If other than Item 6)	CODE	
MASA/Johnson Space Center Attn: BC / Kenia Varquez 2101 NASA Parkway Rouston TX 77058-J690					
I, NAME AND ADDRESS OF CONTRACTOR (A6., se	oat, county, Store and 28P Gode)	(x) ^{EA.}	AMENDMENT OF SCLICITATION NO.		<u> </u>
PACEX ROCKET RD		98.	DATED (SEE (TEM 11)		
AWTHORNE CA 90250		10A	MODIFICATION OF CONTRACT/OR U 0 9GA 0 4B	DER NO.	
		125	DATED (SEE ITEM 19)		
CODE 3RV19	FACILITY CODE		2/23/2006		
	11, THIS ITEM ONLY APP	LIES TO AMENDM	ENTS OF SOLICITATIONS		
B. THE ABOVE RUNBERED CONT appropriation date, etc.) SET FO	RACTIORDER IS MODIFIED TO RTH IN ITEM 14, PURSUANT TO	REFLECT THE AD THE AUTHORITY	MINISTRATIVE CHAMGES (seed) as of OF FAR 43,103(b).		
C. THIS SUPPLEMENTAL AGREEN	ENT IS ENTERED INTO PURSU	JANT 10 AUTHOR	II F OF:		
D. OTHER (Specify type of madina)	oon and euthority)			1500)	
X Clause II. 5.2., NFS 11			Pissed-Price Cont. (Ct) (
E. IMPORTANT: Contractor > 's no				issuing office.	
14. DESCRIPTION OF AMENDMENT/MODIFICATI	CN (Organized by UCF rection h	ieadings, inc uding i	sorgistich acquire a sadhan uterrat muer	e reactour,	
See continuation page					
See continuation page					
See continuation page					
See continuation page					
See continuation page					
See continuation page					
	of the document referenced in No	om 64 or 10A, as he	orctofore changed, അന്മിന്ദ പ്രവീദ്വേദി	and in full force and effe	rct.
Except as provided herein, all terms and conditions 15A. NAME AND TITLE OF SIGNER (Type or print)		16A.	MAME AND TITLE OF CONTRACTOR	and in full force and effe G OFFICER (Type or pi	nct.
Except as provided herein, all terms and conditions 15A. NAME AND YITLE OF SIGNER (Type or print)		An-	eesah K. Yaughn	and in full force and effe G OFFICER (Type or p	ict. inij 18C. DATE SIGNED
Except as provided herein, all terms and conditions		An SIGNED 169	MAME AND TITLE OF CONTRACTOR	GOPPIGEN 1715 GI P	

NSN 754C-01-152-8070 Previous ed a on unusable Proscribed by GSA FAR (48 CFR) 53.243



 Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed – Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):

Of the total price of CLINs 0001 through 0004, the sum of (b) (4)

- (a) is presently available for payment and allotted to this contract.
- (c)(1) It is contemplated that funds presently allotted to this contract will cover work to be performed until
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

	NT OF SOLICITATION/MODIFIC	ATION OF CONTRACT		1. CONTRACT ID CODE	j	1	PAGES
AMENOME	TRAODIFICATION NO.	3. EFFECTIVE DATE	4. REC	DUISITION/PURCHASE REQ. NO.	S. PRO		. (Il applicable)
000052							
ISSUED BY	CODE	JSC	7 AD	MINISTERED BY (If of ar than Item 6)	CODE	l	
Attn: Bo 2101 NA	nnson Space Center 3 / Kenia Yasquez 8A Parkvay TX 77058-3696						
NAME AND	AODRESS OF CONTRACTOR (No., sound	county, State and ZHP Coca)	(x) BA	. AMENDMENT OF SOLICITATION NO			
PACEX ROCYET RD RWTHORNE CA 90250		RE DATED (SEE ITEM 11)					
			x 10	A. MODIFICATION OF CONTRACTION ON NJ 0 9 GA 0 4 B	R NO.		
			110	B. DATED (SEE ITEM 13)			
COOE 3B	VL8	FACILITY CODE		2/26/2009			
		TI. THE TIEM ONLY APPEND	IJ AMENO	RENT S OF BUCICL AYON.			
The above o	rumbered solicitation is a translated as set to	rth in liam 14. The hour and date a	specified for a	aceipt of Offers is	extended,		
Offers must Hems B and separate ict THE PLACE virtue of this to the solicit	addrowledge receipt of this amendment; p. 15, and returning on the or telegram which includes a reference DESIGNATED FOR THE RECEIPT OF a mendment you desire to change an oils also and this amendment and is received THIS AND APPROPRIATION DATA (If re- edule	vitor to the hour and dute specified by pleas of the amendment; (b) By acknowledge to the solectation and emendment of FERS PRIOR TO THE HOUR AI or already submitted, such change in it prior to the opening hour and diffe	n the sol cital owledging re numbers F/ ND OATE SP hay be made specified	ion or as amended, by one of the following capt of this emendment on each copy of it NULTEE OF YOUR ACKNOWLEDGEMENT ECIFIED MAY RESULT IN REJECTION C by lesingnam or revier, provided each lesing.	methods: (a methods: vabit TO BE REC FYOUR OF am or attack	By comp illed; or (c EIVED A' FER if by nakes rafe	leting :) By T rence
Offers must liems 8 and separate of the PLACE virtue of this to the solicit 12, ACCOUNT	addrowledge receipt of this amendment; p. 15, and returning on the or telegram which includes a reference DESIGNATED FOR THE RECEIPT OF a mendment you desire to change an oils also and this amendment and is received THIS AND APPROPRIATION DATA (If re- edule	vitor to the hour and dute specified by pleas of the amendment; (b) By acknowledge to the solectation and emendment of FERS PRIOR TO THE HOUR AI or already submitted, such change in it prior to the opening hour and diffe	n the sol cital owledging re numbers F/ ND OATE SP hay be made specified	ion of as amended, by one of the following calpt of this emendment on anth copy of th ULLINE OF YOUR ACKNOWLEDGEMENT OF CIFIED MAY RESULT IN REJECTION O	methods: (a methods: vabit TO BE REC FYOUR OF am or attack	By comp illed; or (c EIVED A' FER if by nakes rafe	leting :) By T rence
Offers must liems 8 and separate of the PLACE virtue of this to the solicit 12, ACCOUNT	addrowledge receipt of this amendment; p. 15, and returning on the or telegram which includes a reference DESIGNATED FOR THE RECEIPT OF amendment you crisine to change an oils abon and this amendment and is received ING AND APPROPRIATION DATA (if received 13. THIS ITEM ONLY APPLIES TO be	rior to the hour and date specified in ples of the amendment; (b) By the to the soliccation and emendment or FERS PRIOR TO THE HOUR AI or already submitted, such change in prior to the opening four and differ prior (b) the opening four and differ prior (c) (c) (c) (c) (c) (c) (c) (c) (c) (c)	n the solution owledging remarkers. F/ND DATE SPonsy be made a specified	ion or as amended, by one of the following capt of this emendment on each copy of the control of the copy of the control of the copy of th	methods: (a me offer subtr TO BE REC FYOUR OF method of offer a method of offer a) By comp illed; or (c ENED A' FER if by nakes rafe	leting :) By T rence
Offers must liems 8 and separate let THE PLACE wirtue of this to the solicit 12, ACCOUNT See Sch.	addrowledge receipt of this amendment; p. 15, and returning on the or telegram which includes a reference DESIGNATED FOR THE RECEIPT OF I amendment you desire to change an ofte abon and this amendment and is received ING AND APPROPRIATION DATA (I) received 13. THIS TIEM ONLY APPLIES TO HE A. THIS CHANGE ORDER IS ISSUED F ORDER NO. IN TIGM 103.	visor to the hour and date specified in ples of the amendment; (b) By eak to the solicitation and emendment to the solicitation and emendment to the operating to the Hours at prior to the operating four and dise united) ODIFICATION OF CONTRACTS/OI PURSUANT TO (Specify authority) TYORDER IS MODIFIED TO SEF! IN ITEM 14, PURSUANT TO THE	n the solicitation and control of the control of th	ion or as amended, by one of the following calpt of this emendment on each copy of it vicure or your Acknowledgment in Cliffied May Resulct in Rejection of by lesingnem or refer, provided each lesing in Conflete the Contraction den in Conflete the Contraction den in Conflete the Contraction den in Conflete the Contraction den in Conflete the Contraction den in Conflete the Contraction den in Conflete the Contraction den in Conflete the Contraction den in Conflete the Contraction den in Conflete the Contraction den in Conflete the Co	methods: (a methods: (a) methods: (b) methods: (b) methods: (a) method) By comp illed; or (c ;EIVED A FER III by nakes refe to th tren stract	leting :) By T rence
Offers must liems 8 and liems 8 and liems 8 and liems 11 and liems 11 and liems 12. ACCOUNT \$ 2.9 SCh	addrowledge receipt of this amendment; p. 15, and returning on the or telegram which includes a reference DESIGNATED FOR THE RECEIPT OF I amendment you desire to change an oils against this amendment and is received THIS AND APPROPRIATION DATA (If re- edule 13. THIS THEM ONLY APPLIES TO HE A. THIS CHANGE ORDER IS ISSUED F ORDER NO. IN TIGM 104. B. THE ABOVE NUMBERED CONTRAL REPROPRISED ONTRAL REPROPRISED STATE REPROPRISED CONTRAL REPROPRISED CONTRAL REPROPRISED CONTRAL REPROPRISED CONTRAL REPROPRISED CONTRAL REPROPRISED CONTRAL REPROPRISED CONTRAL REPROPRISED CONTRAL REPROPRISED CONTRAL REPROPRISED CONTRAL REPROPRISED CONTRAL REPROPRISED CONTRAL REPROPRISED CONTRAL REPROPRISED CONTRAL REPROPRISED REPROPR	visor to the hour and date specified in ples of the amendment; (b) By eak to the solicitation and emendment to the solicitation and emendment to the operating to the Hours at prior to the operating four and dise united) ODIFICATION OF CONTRACTS/OI PURSUANT TO (Specify authority) TYORDER IS MODIFIED TO SEF! IN ITEM 14, PURSUANT TO THE	n the solicitation and control of the control of th	ion or as amended, by one of the following calpt of this emendment on each copy of it vicure or your Acknowledgment in Cliffied May Resulct in Rejection of by lesingnem or refer, provided each lesing in Conflete the Contraction den in Conflete the Contraction den in Conflete the Contraction den in Conflete the Contraction den in Conflete the Contraction den in Conflete the Contraction den in Conflete the Contraction den in Conflete the Contraction den in Conflete the Contraction den in Conflete the Contraction den in Conflete the Co	methods: (a methods: (a) methods: (b) methods: (b) methods: (a) method) By comp illed; or (c ;EIVED A FER III by nakes refe to th tren stract	leting :) By T rence
Offers must liems 8 and liems 8 and liems 8 and liems 11 and liems 11 and liems 12. ACCOUNT \$ 2.9 SCh	addrowledge receipt of this amendment; p. 15, and returning on the or telegram which includes a reference DESIGNATED FOR THE RECEIPT OF I amendment you desire to change an oils against this amendment and is received THIS AND APPROPRIATION DATA (If re- edule 13. THIS THEM ONLY APPLIES TO HE A. THIS CHANGE ORDER IS ISSUED F ORDER NO. IN TIGM 104. B. THE ABOVE NUMBERED CONTRAL REPROPRISED ONTRAL REPROPRISED SET FORTH	vitor to the hour and date specified by each of the amendment; (b) By each to the assistation and emendment of FERS PRIOR TO THE HOUR AI or already submitted, such change in prior to the opening hour and date privated) ODIFICATION OF CONTRACTSION PURSUANT TO (Specify authority) TO ROPER IS MODIFIED TO REFIT IN ITEM 14, PURSUANT TO THE	n the solicitation and control of the control of th	ion or as amended, by one of the following calpt of this emendment on each copy of it vicure or your Acknowledgment in Cliffied May Resulct in Rejection of by lesingnem or refer, provided each lesing in Conflete the Contraction den in Conflete the Contraction den in Conflete the Contraction den in Conflete the Contraction den in Conflete the Contraction den in Conflete the Contraction den in Conflete the Contraction den in Conflete the Contraction den in Conflete the Contraction den in Conflete the Contraction den in Conflete the Co	methods: (a methods: (a) methods: (b) methods: (b) methods: (a) method) By comp illed; or (c ;EIVED A FER III by nakes refe to th tren stract	leting :) By T rence
Offers must liems 8 and liems 8 and liems 8 and liems 11 and liems 11 and liems 12. ACCOUNT \$ 2.9 SCh	addrowledge recitify of this amendment; p. 15, and returning	vitor to the hour and date specified by each of the amendment; (b) By each to the assistation and emendment of FERS PRIOR TO THE HOUR AI or already submitted, such change in prior to the opening hour and date privated) ODIFICATION OF CONTRACTSION PURSUANT TO (Specify authority) TO ROPER IS MODIFIED TO REFIT IN ITEM 14, PURSUANT TO THE	n the solicities ownedging to consider the comment of the comment	ion or as amended, by one of the following calpt of this emended on each copy of it vicure to round acknowledgement eclinical may result in Rejection or by lesignem or refer, provided each lesign in the contraction of the	methods: (a mother subtricts of the control of the) By comp illed; or (c ;EIVED A FER III by nakes refe to th tren stract	leting :) By T rence

Except as provided hirror. If forms and conditions of the document referenced in item 6A or 10A, as transferore changed, remains unchanged and in full force and effect.

18A MAME AND TITLE OF SIGNER (Type or print)

18A NAME AND TITLE OF CONTRACTING OFFICER (Type or print)

Annews ah. "aughtn

18B DOWNER, OR/OFFEROR.

18C DATE SIGNED

18B UNITED STATES OF AMERICA

18C DATE SIGNED

18D CONTRACT OF CONTRACTING OFFICER (Type or print)

18D CONTRACT OF CONTRACTING OFFICER (Type or print)

18D CONTRACT OR/OFFEROR.

18D CONTRACT OR/OFFEROR.

18D CONTRACT OR/OFFEROR.

18D CONTRACT OR/OFFEROR.

18D CONTRACT OR/OFFEROR.

18D CONTRACT OR/OFFEROR.

18D CONTRACT OR/OFFEROR.

18D CONTRACT OR/OFFEROR.

18D CONTRACT OR/OFFEROR.

18D CONTRACT OR/OFFEROR.

18D CONTRACT OR/OFFEROR.

18D CONTRACT OR/OFFEROR.

18D CONTRACT OR/OFFEROR.

18D CONTRACT OR/OFFEROR.

18D CONTRACT OR/OFFEROR.

18D CONTRACT OR/OFFEROR.

18D CONTRACT OR/OFFEROR.

18D CONTRACT OR/OFFEROR.

18D CONTRACT OR/OFFEROR.

18D CONTRACT OR/OFFEROR.

18D CONTRACT OR/OFFEROR.

18D CONTRACT OR/OFFEROR.

18D CONTRACT OR/OFFEROR.

18D CONTRACT OR/OFFEROR.

18D CONTRACT OR/OFFEROR.

18D CONTRACT OR/OFFEROR.

18D CONTRACT OR/OFFEROR.

18D CONTRACT OR/OFFEROR.

NSN 7540-01-152-0370 Previous edition unus ale STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243 NNJ09GA04B Modification: 52

The purpose of this modification is to revise section II.A.6 Resupply Mission Payments, Milestone Events and Completion to incorporate the mutually agreed to External Integration Review (EIR) as an additional milestone.

Due to an increase in the number of non FRAM -compatible payloads in manifest after contract award, the need for a new review focused specifically on external cargo is imperative to the ISS program and provides benefits to both parties. Both parties agreed that the below is adequate consideration

Space -X shall provide NASA with an additional EIR milestone that will give NASA the ability to evaluate the contractor's readiness to proceed with these complex operations. The EIR will also allow NASA to review the analytical products designated for delivery in the timeframe stated in the Mission Requirements and Allocations Document (MRAD) DRD C4-2.

In consideration thereof, the parties agree to modify the Mission Payment Schedule in Section II.A.6 of the contract and the affected work plans that adjusts the percentages in both documents. The percentages associated with each milestone will be updated to reflect the addition of the EIR milestone, excluding milestones that the Government has

(b) (4)

satisfies the MIR 50% cap and Post Flight 20% restriction
(b) (4)

(b) (4)

As a result, the following revisions and updates have been made to the contract and statement of work:

- 1) Table II.A.6-1B: Generic Mission Payment Schedule (Post-ISS Integration) has been revised to reflect the updated Milestone percentages for missions (b) (4) (Pg 23)
- SOW: Updated to add Section 2.1.1.2.5 External Integration Review description. (Fg. 67)
- 3) Administrative change to the order of constraints in section 6.4 (Pg. 24)
- 4) All other terms and conditions of NNJ09GA04E remain unchanged and in full force and effect.

Table II.A.6-1A: Generic Mission Payment Schedule (Pre-ISS Integration)

Mission Level Milestone	Invoice Submission Date	Major Resupply Mission Milestone	Amount (% of Standard Mission Price)
1	L-21* L-24*	Authorization to Proceed (ATP)	(b) (4)
2	L-18	Vehicle Baseline Review (VBR)	
3	L-12	Mission Integration Review (MIR)	
4	12-6	Cargo Integration Review	
_ 5	L	Launch	
6	Cargo Delivery	Delivery	

Table II.A.6-1B: Generic Mission Rayment Schedule (Post-ISS Integration)

Mission Level Milestone	Invoice Submission Date	Major Resupply Mission Milestone	Amount (% of Standard Mission Price)
			/L\ / //\
1	L-21* L-24**	Authorization to Proceed (ATP)	(D)(4)
2	L-18	Vehicle Baseline Review (VBR)	
3	L-12	Mission Integration Review (MIR)	
4	L-10	External Integration Review	
5	L-6	Cargo Integration Review (CIR)	
6	L/	Launch	
7	Cargo Delivery	Delivery	

^{*} ATP for Missions 1-3 is L-21 Months. **ATP for Missions 4-7 is L-24 Months

^{***}ATP for Missions 8-12 is L-26 Months

^{****} Changes to Missions 1-4 documented in approved work plan updates.

- 6.4 The following constraints apply:
 - (A) Mission milestone payments made for resupply missions prior to completion of ISS integration, shall not exceed 50% of the cost of that mission.
 - (B) After successful completion of ISS integration, the total of milestone payments prior to (and including) the MIR shall not exceed 80% of the total cost of the mission.
 - (C) The final milestone payment must equal at least 20% of the cost of each mission.
- Payment schedules may be deferred or canceled by NASA if the Contractor fails to make substantial progress in accomplishing the major resupply service milestone events. The Contracting Officer will either approve or withhold the final payment within fifteen calendar days after NASA determines Mission Success in accordance with Clause II.A.19. The final payment amount shall be determined in accordance with the criteria in Clause II.A.19. In the event of a failed mission, the final payment shall be forfeited by the Contractor and is not recoupable.
- This paragraph will apply to any postponement declared by NASA or the Contractor for any reason, including resupply schedule adjustments and Contractor failure to make substantial progress in accordance with resupply service milestone events (as determined by NASA under this clause). In the event of a resupply schedule adjustment by NASA or Contractor in accordance with Clause II.A.20, Adjustments to Mission Schedule, the payment schedule for the applicable resupply mission shall be postponed for the length of the delay, if necessary, to correspond with the new delivery date and the milestone events in the attached NASA-approved Work Plan (DRD C1-8). The requirement to make substantial progress in general conformance with the attached Work Plan, however, is not waived for any postponed resupply mission.

(End of clause)

II.A.7 ORDERING (FAR 52.216-18) (OCT 1995)

- (a) Any supplies and services to be furnished under this contract shall be ordered by issuance of delivery orders or task orders by the individuals or activities designated in the Schedule.
- (b) All delivery orders or task orders are subject to the terms and conditions of this contract. In the event of conflict between a delivery order or task order and this contract, the contract shall control.
- (c) If mailed, a delivery order or task order is considered "issued" when the Government deposits the order in the mail. Orders may be issued orally, by facsimile, or by electronic commerce methods only if authorized in the Schedule.

(End of clause)

II.A.8 ORDER LIMITATIONS (FAR 52.216-19) (OCT 1995)

ISS Integration shall be complete prior to the first CIR. The post-flight data review shall be complete; and all anomalies are identified with corrective actions and low-risk closure plans in place.

2.1.1.2.4. POST-FLIGHT REVIEW

The Contractor shall conduct a post flight review after each mission to assess mission success and provide supporting data. The Contractor shall be responsible for providing telemetry data confirming the required launch and orbit conditions and cargo environments were met as stated in the IDD (ORD C3-1). The Preliminary Post Flight Assessment (DRD C7-1) shall contain the data necessary to verify these conditions. The Contractor shall measure and provide telemetry data to the extent required by Section 2.2.2 below. NASA will be responsible for providing data supporting cargo status.

Mission success will be determined based on the criteria set forth in Contract Section II.A.19, Mission Success Determination, Investigation and Corrective Action.

2.1.1.2.5. EXTERNAL INTERGRATION REVIEW

At L-10 months for missions with manifested external cargo, SpaceX shall hold the External Integration Review. The objective of this review is for SpaceX to demonstrate readiness to receive and integrate external cargo and review results of External cargo analysis from the Mission Requirements Allocations Document (MRAD) C4-2.

The Contractor shall, at this review:

- a) Verify that ground processing facilities are ready to receive NASA external cargo and ground support equipment is in place.
- b) Verify that the Dragon vehicle is on schedule for external cargo integration activities.
- Present mission unique design qualification and acceptance testing related to external cargo.
- d) Present status of verification closures for all open SSP 50808 requirements related to external cargo.
- c) Review, as necessary, the Pre-Fight Imagery Plan previously provided.
- Review open hazards and safety issues related to the external cargo configuration
- g) Present a status of all action open external cargo items
- h) Present Final external cargo Instrumentation
- i) Deliver the following documentation;
 - Deliver the Initial Mission Resource Allocation Document (DRD C4-2).
 - ii) Deliver Proposed Final External Cargo Interface Control Agreement (DRD C3-2)
 - (ii) Final layouts and CAD models of external configuration
 - iv) Initial analysis of launch specific external cargo environments
 - v) Final FSE procurement or development schedule

	NT OF SOLICITATION/MODIFI	CATION OF CONTRACT	1. CONTRACT ID CODE	PAGE OF PAGES
B AMELIER CO.			To occupation of the page and	1 176
	NTMODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
000053 a Issued by	CODE	07/26/2013 JSC	7, ADM NISTERED BY (If other than Item 6)	CODE
Attn: BO 2101 NAS	hnson Space Center G / Kenia Masquez SA Parkway TX 77058-3696	1000		<u> </u>
8. NAME AND	ADDRESS OF CONTRACTOR (No. 1876	el, county State and ZIP Code)	(x) PA. AMENDMENT OF SOLICITATION NO.	
SPACEX				
ROCKET	RD		98. DATED (SEE ITEM 11)	
AWTHORN	E CA 90250			
			X 100 MODIFICATION OF CONTRACT/ORDER	NO.
			X NNJ09GA04B	
			109. DAYED (SEE ITEM 13)	
C00E 200	VLB	FACILITY CODE	02/26/2009	
30	· 40		AGENDMENTS OF LOUISITATIONS	
The shows a	umpart callelation is amunded as sal	forth in Item 14. The hour and date spec		inded,] is not extended.
to the solicite	ation and this amendment, and is received ING AND APPROPRIATION DATA (# n	ed prior to the opening hour and date spi	be made by telegram of teller, provided each telegram ecified.	bi loute, (USX44) (Sietel) (S
see scile		MODIFICATION OF CONTRACTS/ORDS	ERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DI	SCRIBED IN ITEM 14
CHECK DNE	· ·		THE ADMINISTRATIVE CHANGES (such as change)	
		H IN ITEM 14, PURSUANT TO THE AU NT IS ENTERED INTO PURSUANT 70		
	A PARTIE TO THE PROPERTY OF TH			
	U. O'IHER (Specify type of modification	0.0000000000000000000000000000000000000	(FAR.52.243-1) (AUG 1987)	Drawnska II
			((FAR. 32.243-1) (AUG 1967)	
х			and on the lands	
E. IMPORTANT	r: Confractor "la not.	x is required to sign this document a		g office.
E. IMPORTANT	T: Contractor Tale not	x is required to sign this document a	including solicitation/contract subject matter where faux	g office,
E. IMPORTANT	T: Contractor Tale not	x is required to sign this document a	including soliditetion/confrect subject matter where feas ntract and statement of work	g office. (b) (4)
LIMPORTANT 14. DESCRIPT The purp	T: Contractor Is not.	<u>x</u> is required to sign this document as (Organized by UCF section headings, is to update the con	including solicitation/contract subject matter where faux	g office. (b) (4)
LIMPORTANT 14. DESCRIPT The purp	T: Contractor Tale not	<u>x</u> is required to sign this document as (Organized by UCF section headings, is to update the con	including soliditetion/confrect subject matter where feas ntract and statement of work	g office. (b) (4)
HA DESCRIPT THE PURP	Contractor Is not. CONTRACTOR OF AMENDMENT/MODIFICATION COSE OF modification (b) (4) and Task Order 1 Rev.	<u>x</u> is required to sign this document as (Organized by UCF section headings, is to update the con	including soliditetion/confrect subject matter where feas ntract and statement of work	g office. (b) (4)
.IMPORTANT 4. DESCRIPT he purp atrix &	Contractor The notation of a menument/modification ose of modification (b) (4) and Task Order 1 Rev. The consideration of the consid	Lis required to sign this document as (Organized by UCF section headings, is to update the costs) Lision J for details) (b) (4)	including soliciteion/confrect subject matter where fears ntract and statement of work (See attachment 1 Contract to modification, the contract	(b) (4) cact Change
.IMPORTANT 4. DESCRIPT he purp atrix a (b) (c)	Contractor Is not. CONTRACTOR OF AMENDMENT/MODIFICATION (b) (4) and Task Order 1 Rev. The consideral the Government from	** is required to sign this document as (Organized by UCF section headings, is to update the contained by UCF section headings, is to update the contained by the section of the section of this agreed in any and all liabil.	including solicition/confrect subject matter where fears ntract and statement of work (See attachment 1 Contract to modification, the contract ity under this contract for	coffice. (b) (4) act Change tor hereby further
.important 4. DESCRIPT he purp atrix a (b) (c)	Contractor Is not. CONTRACTOR OF AMENDMENT/MODIFICATION (b) (4) and Task Order 1 Rev. The consideral the Government from	** is required to sign this document as (Organized by UCF section headings, is to update the contained by UCF section headings, is to update the contained by the section of the section of this agreed in any and all liabil.	including soliciteion/confrect subject matter where fears ntract and statement of work (See attachment 1 Contract to modification, the contract	coffice. (b) (4) act Change tor hereby further
.IMPORTANT 4. DESCRIPT he purp atrix a (b) (eleases quitabl hanges.	Contractor Is not. CONTRACTOR IN STATE OF THE NOTION OF AMENDMENT/MODIFICATION (b) (4) In Consideration of the Government from the Government sattribute adjustments attribute.	** is required to sign this document as (Organized by UCF section headings, is to update the contained by UCF section headings, is to update the contained by the section of the section of this agreed in any and all liabil.	including solicition/confrect subject matter where fears ntract and statement of work (See attachment 1 Contract to modification, the contract ity under this contract for	coffice. (b) (4) act Change tor hereby further
(b) (eleases quitabl hanges.ayment	Contractor Is not. CONTRACTOR IN STATE OF THE NAME OF	** is required to sign this document as (Organized by UCF section headings, is to update the contained by UCF section headings, is to update the contained by the section of the section of this agreed in any and all liabil.	including solicition/confrect subject matter where fears ntract and statement of work (See attachment 1 Contract to modification, the contract ity under this contract for	coffice. (b) (4) act Change tor hereby further
e.important 14.DESCRIPT The purp Catrix & (b) (c) Teleases equitable changes. cayment	Contractor Is not. CONTRACTOR IN STATE OF THE NAME OF	** is required to sign this document as (Organized by UCF section headings, is to update the contained by UCF section headings, is to update the contained by the section of the section of this agreed in any and all liabil.	including solicition/confrect subject matter where fears ntract and statement of work (See attachment 1 Contract to modification, the contract ity under this contract for	(b) (4) act Change tor hereby further
the purp datrix a (b) (celeases equitable changes.	Terms:	* Is required to sign this document as (Organized by UCF section headings, is to update the control of the section of this agreed in any and all liability outable to such fact.	including solicition/confrect subject matter where fears ntract and statement of work (See attachment 1 Contract to modification, the contract ity under this contract for	g office. (b) (4) act Change tor hereby further se to these
e.IMPORTANT 14.DESCRIPT The purp fatrix a (b) (creleases equitable changes. Payment Net 3 da	Contractor Is not. CONTRACTOR IS NOT. CONTRA	* Is required to sign this document as (Organized by UCF section headings, is to update the control of the section of this agreed in any and all liability outable to such fact.	including soliciteiton/contract subject matter where feasint ract and statement of work (See attachment 1 Contract to modification, the contract to modification, the contract ity under this contract for s or circumstances giving rise of circumstances.	g office. (b) (4) act Change tor hereby further se to these
(b) (creleases equitable changes. Payment Net 3 da	Contractor Is not. CONTRACTOR IS NOT. CONTRA	* Is required to sign this document as (Organized by UCF section headings, is to update the control of the section of this agreed in any and all liability outable to such fact.	including soliciteiton/confect subject metter where feasint ract and statement of work (See attachment 1 Control to modification, the contract to modification, the contract for sor circumstances giving rise or circumsta	g office. (b) (4) act Change tor hereby further se to these
(b) (creleases equitable thanges. Payment Net 3 da	Terms: 15 Contractor 15 not. 16 Note of Management/Modification (b) (4 not Task Order 1 Rev: 4) 16 Consideration the Government from a adjustments attributed to the Government from a conditions of the Interest of the Government from a conditions of the Interest of the Government from a conditions of the Interest	* He required to sign this document as Organized by UCF section headings, is to update the contained by UCF section headings, is to update the contained by UCF section headings, is to update the contained by UCF section of the details) (b) (4) the contained by UCF section headings, is to update the contained by UCF section head	including soliciteins/contract subject metter where reason tract and statement of work (See attachment 1 Contract to modification, the contract to modification, the contract ity under this contract for s or circumstances giving rise or circumstances giving rise on circumstances giving rise on the contract for solicite of contractions of the contract for solicite of contractions of the contract for solicite of contracting of the contract for solicite of contracting of the contract for solicite of contracting of the contract for solicite of contracting of the contract for solicite of contracting of the contract for solicite of contracting of the contract for solicite of contracting of the contract for solicite of contracting of the contract for solicite of contract for solicite of the contr	g office. (b) (4) act Change tor hereby further se to these

NSN 7540-31-152-8070 Previous adition unusable STANOARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (4B CFR) 53,243

Contract Number: NNJ09GA048

Attachment 1 Contract Changes Matrix per Modification 53 and Task Order 1 Revision J

	Section/ Page	Current Contract	Modified Contract	(b) (4) if applicable	Party
C(NSIDERA	TION: (Space-X shall provide t	o NASA)		
I	LA.4 Contract line items 2.1.4 CLIN 0004 Secondary Payloads (PPOD)		b) (4)		NASA
_	Pg. 11				
2	1.0 Scope/ pg.62	Not included	Additionally NASA-sponsored cargo soutie missions can be requested as services under CLIN 003 for periods before or after berthing to ISS.	Additional capability	NASA
3	2.4.6 Crew & Equipmen t interface Test (CEIT) /pg. 77	Not included	(b) (4) NASA will provide flight like units and characteristic data to support testing, if available	Additional requirement for payload testing	NASA
4	Table V.B3 DR.D Required pg. 84	Not included	C4-6 Mass Properties Data	NA/ Administrative Change Addition of new DRD for MP/Deleted form MRAD	NASA
5	C4-2 Initial Mission Resource Allocation document #5) Pg. 109	Experiment/ORU thermal/environmental assessment including Launch to Activation Analysis for external cargo and flight profile.	5) Thermal/environmental assessment including Launch To Activation Analysis for all unpressurized cargo and flight profile. Also includes thermal data needed to support trunk contamination assessments. Thermal data shall be provided in accordance with the following: Space X shall supply case-consistent thermal data of Dragon trunk and payload thermal nodes during each MRAD cycle.	NA/ Administrative Change Updating MRAD to cover flight specific MRAD update on themal contamination analysis	NASA
5	C 4-3. Imagery and associated cataloging Pg./111	The Contractor shall provide imagery of berthing interfaces, crew interfaces, connectors, Extravehicular Activity (EVA) and Extravehicular Robotic (EVR) interfaces of the orbital vehicle. This imagery shall capture all ISS interfaces on the orbital vehicle and cargo transported to the ISS.	The Contractor shall provide imagery of berthing interfaces, crew interfaces, connectors, Extravehicular Activity (EVA) and Extravehicular Robotic (EVR) interfaces of the orbital vehicle. This imagery shall capture all ISS interfaces on the orbital vehicle and cargo transported to the ISS. Additionally Spane-X will provide recorded video recording of the Pressurized cargo section during launch and reentry. SpaceX makes no assurance of what images or viewpoints will be captured in these recordings.	Addition of video recording of press section	NASA
7	C4-6 Mass Properties Data Pg/il6	Not included	DATA REQUIREMENT DESCRIPTION NUMBER: C4-6 C4-6; MASS PROPERTIES DATA DESCRIPTION/PURPOSE: This data is required to define the vehicle mass	NA Administrative Change	NASA

Contractor: Space Exploration Technologies

Contract Number: NNJ09GA04B Attachment 1 Contract Changes Matrix per Modification 53 and Task Order 1 Revision J properties to perform flight-specific robotics analysis and to ensure vehicle mass properties remain within analyzed space for RPOC, VIPER, and structures analyses. DATA REQUIREMENTS: Vehicle mass, moments of inertia, and products of incitia about the center of gravity in its ISS approach configuration. Vehicle mass properties shall include separate line items for Dragon, trunk with arrays, pressurized cargo, propellant (if applicable), ballast, and unpressurized cargo ·Unpressurized cargo integrated assembly mass. moments of inertia, and products of intertia about the center of gravity in its extraction configuration. Shall include payload and Flight Support Equipment attached to the payload. ·Coordinate system description ·List of analysis assumptions Basis of Estimate - Which masses are estimated? Which are actuals? List of vehicle changes included in estimate · Values should be provided in both English (slug/ft^2) and metric units ·Vehicle mass properties both with and without propellant ·Vehicle mass properties with propellant both at the start of CE2 and at capture (The deliveries at L-18, L-15, L-11, L-7, L-5, L-3, L-2 1-1, and L-0.5 months are the same, except the L-1 month delivery is expected to be a weighed, final vehicle mass and the L-0.5 month delivery is expected to be a weighed vehicle mass with cargo. It is acceptable for the integrated payloads mass data to not be provided until L-10. The L-18 delivery is expected to be coupled with the SpaceX VBR data pack delivery. The L-15 delivery is expected to be coupled with the SpaceX Preliminary External ICA delivery.) NOTE: If no updated data is available from the previous submission, SpaceX will notify NASA that the previous drop is still valid. CONSIDERATION: (NASA shall provide to Space-X) 2.1.1.2.4 Not included NASA will provide it recorded video of Dragon Space X Post robotics operations including bothing, Flight unberthing and cargo extraction/insertion. Review / pg. 67 NASA will provide capability for Space-X to 2.2.2 Not included receive Dragon telemetry via Ethernet using Space-X Telemetry NASA resources during berthed operations on a Data / pg. non-interference basis 10 2.52.1 Based on the information reported to NASA will provide the Contractor an Interrated NA Integrated NASA in the Initial MRAD (DRD Bag Level Hazard Assessment (IBLHA) I week Space-X Administrative Cargo C4-2), NASA will provide the after each delivery of the Fressurized Cargo Bag Change Safety Contractor with a copy of its initial Munifest per the schedule identified in the Assessme cargo safety assessment at L-5 months mission Work Plans (DRD C1-8). The Changes to remove nt/pg.79 for each mission. The Contractor Contractor shall submit as part of the Integrated Saiety DRDs and

Vehicle Safety Data Package integrated carrie

deliver as part of

shall submit an integrated cargo Phuse

Contractor: Space Exploration Technologies Contract Number: NNJ09GA04B

		Attachment 1 Contract (Changes Matrix per Modification 53 a	nd Task Order 1 R	evision J
	TO THE REAL PROPERTY OF THE PR	Ill hazard report (DRD C5-2) per SSP 30599 at L-4 months, to ensure that the packaging of the cargo complement does not include hazards with insufficient controls. The Contractor shall submit delta integrated cargo hazard reports at L-3 months and final at L-1 month according to DRD C6-3 based on updated and final integrated cargo hazard assessments provided by NASA.	Phase III hazard report per SSP 30599, to ensure that the packaging of the cargo complement does not include hazards with insufficient controls. The Contractor shall submit delta integrated cargo hazard reports as required based on updated and final integrated cargo hazard assessments provided by NASA.	standard SSP 30599. Already done for Space-X 1 · 2.	
11	Table V.B5 DRD Required Pg. 85	C5 1 Initial Flight Products	Not included	NA/ Administrative Change Deletion of Safety DRD/ submission under this report is submitted in another document and is considered to be duplicate information	Space -X
12	Table V.ES DRD Required Pg. 85	C5 2 Integrated Cargo Phase III Hazard Report	Not included	NA/ Administrative Change Deletion of MOD DRD/ submission under this report is submitted in another document and is considered to be duplicate information	Space -X
13	Table V.B6 DRDS Required Near Launch Pg. 86	C6-2 Final Flight Produc's	Not included	NA/Administrative Change Deleted	Space -X
14	C6 3 Deita Integrated Cargo Hazard Report Pg. 86	C6 3 Delta Integrated Cargo Hazard Report	Not included	NA/Administrative Change Deleted	Space -X
15	CS-1: Initial Flight Products Pg. 118	DATA REQUIREMENT DESCRIPTION Number: C5-1 C5-1: Initial Flight Products DESCRIPTION/PURPOSE: NASA will use hardware and analytical data provided by the Contractor in the Initial MRAD to develop the preliminary flight products, crew procedures, and flight rules. This DRD provides a mechanism for the Contractor to provide technical input and comments to the NASA developed procedures. These procedures include maintenance, malfunction, timelines, and crew training plans for both the orbital vehicle and cargo.	Not included / DRD deleted	NA/ Administrative Change	Space -X

Contractor: Space Exploration Technologies

Contract Number: NNJ09GA04B

		Attachment 1 Contract (Changes (Viatrix per Modification 53 a	nd Task Order 1 F	
		These products will ultimately be used by NASA as flight documents for flight crew and ground pursonnel. DATA REQUIREMENTS: The Contractor shall provide updates to NASA-provided draft flight procedures and flight rules. These procedures and flight rules. These procedures and timelines shall address all orbital vehicle procedures and sequences, as well as any required cargo mission unique procedures. Flight procedures the Contractor shall review include: a) Nominal and off-nominal operations of the orbital vehicle and payloads. The meas to be covered include Robotics Operations/Checklists, Contingency Operations, Vestibule Operations, Rendezvous Operations/Checklist, On-Orbit Maintenance, Flight Rule Inputs Partable Computer System (PCS) Displays, On-orbit checkout (berthing). b) Vehicle updates to Guidance and Trajectory 1) Vehicle trajectory data and 3-sigma dispersions analysic 2) Vehicle navigational sensor data (performance, accuracy, limitations and constraints)			
AD 16	2.2.5 Leunch Readiness Assessme nt/pg. 70	The Contractor shall also submit orbital vehicle CAD models for each mission per DRD C4-1, Engineering Computer Aided Design Models	The Contractor shall also submit orbital vehicle CAD models for each mission per URD C4-1. Engineering Computer Aided Design Models and Vehicle and Integrated Assembly mass properties for each mission per DRD 4-6, Mass Properties Data.	RASA and Space-X agreement to make separate MP DRD to better define schedule and content. Scope was deleted from	NA/ Administrative Change
17	2.3.3 3 Mission Flight Procedure s Pg./72	2.3.3.3 Mission Flight Product Development At approximately L-7 months NASA will provide to the Contractor the initial flight products (crew procedures and flight rules). NASA will develop these procedures and flight rules based on the Initial MRAD (DRD C4-2) and Space-X Initial Flight Products (DRD C5-1). The Contractor shall provide inputs to these flight products at L-5 months in accordance with DRD C5-1 to support the flight Operations Review. These procedures will cover robotics operations and checklists, vestibule operations, rendezvous operations and checklist, and off-nominal systems operations and maintenance. In addition, the Contractor shall provide	At approximately L-7 months NASA will provide to the Contractor the initial flight products (crew procedures, flight rules and additional operations products) to support NASA Mission Operations products. NASA/Space-X will develop the initial flight products based on the Initial MRAD (DRD C4-2) as outlined in the MIOMP (DRD C1-7). NASA will provide Final Flight Products for the Contractor review at approximately L-4 weeks. The Contractor specific mission products will be documented in NASA maintained documentation such as Flight Rules, OIPs, Dragon system manual, procedures and protocols. The Contractor shall support and review development of joint flight products as documented in the MIOMP (DRD C1-7) and Space-X Mission Operations Plan	MRAD SOW changes agreed to by MOD/Space-X in order to delete DRDs. These changes go with some MIOMP changes. Content of process defined in MIOMP. Changes to remove MOD DRDs and deliver as part of standard MOD phocesses. It was done for SpX 1-2	NA/ Administrative change

Contractor: Space Exploration Technologies Contract Number: NNJ09GA04B

			-	OTHER DOC 16 DELL	(Det. 1914	120207010	
Attachment 1	Contract Changes	Matrix ner	Modification	VacT bac 52	Order 1	Revision I	

			Changes Matrix per Modification 53 a	nd Task Order 1 F	Revision J
		technical assistance and available data to NASA in the development of transfer lists and procedures, for pressurized cargo transferred to and from the ISS. MASA will provide Final Flight Products for review at L-2 weeks. The Contractor shall provide any updates to the Final Flight Products in accordance with DRD C6-2 at L-2 weeks.			
18	2.3.3.4.1 Flight crew and Ground Support Personnel training/ pg. 72	The Contractor shall provide a mission specific crew training plan as outlined in the Mission Training Plans (DRD C4-5) at ATP. (L-22 months). The Contractor shall provide a minimum of two flight crew and ground personnel training sessions at the Contractor facility. The Contractor shall propose acceptable dates for the training briefings in accordance with DRD C4-5.	The Contractor shall provide a mission specific crew training plan as outlined in the Mission Training Plans (DRD C4-5) at ATP. The Contractor shall provide a minimum of two flight crew and ground personnel training sessions at the Contractor facility. The Contractor shall propose acceptable dates for the training briefings in accordance with DRD C4-5.	NA/ Administrative Change	NA/ Administrative change
19	2.3.3.5 Real- Time Mission Support! pg.73	The Contractor shall support real-time mission operations for each ISS resupply service flight by providing technical expertise, on-console support at ISC during rendezvous berthing, unpressurized cargo retrieval, utarislation and integration, cargo transfer and unberthing.	The Contractor shall support real-time mission operations for each ISS resupply service flight by providing technical expenses, on-console support at JSC during rendezvous, berching, unpressurized cargo retrieval, translation and integration, cargo transfer, unberthing and resultry.	NA/ Clarification	NA/ Administrative change
20	C4-2 Initial Mission Resource Allocation document #7) Pg. 109	7) Orbital vehicle structural matin model	7) Orbital vehicle Dynamics	NA/ Administrative Change Both parties agree to make a separate MP DRD to better define schedule and contint. Scope deleted from MRAD	NA/ Administrative Changa
21	C5-2: Integrated Cargo Phaze III Hazard Report Pg. 119	DATA REQUIREMENT DESCRIPTION Number: C5-2 C5-2: Integrated Cargo Phase III Hazard Report DESCRIPTION/PURPOSE. The ISS SRP will use the Integrated Hazard Reports and System Description to assess the design and operation of ISS element hardware configuration for preflight assessments. DATA REQUIREMENTS: Submituals shall consist of Integrated Hazard Reports and System Descriptions for all cargo that will be integrated into the orbital vehicle pressurized module and the integrated assembly on the external carrier. Hazard Reports and System Descriptions shall be provided in accordance with SSP 30309, Safety Analysis and Risk Assessment Requirements.	Not included / DRD deleted	NA/ Administrative Change	NA/ Administrative change

Contractor: Space Exploration Technologies Contract Number: NNJ09GA04B

Attachment 1 Contract Changes Matrix per Modification 53 and Task Order 1 Revision J

	Attachment 1 Contract C	Changes Matrix per Modification 5	3 and Task Order 1 R	evision J
	System Description: The Contractor shall provide a description of the launch and on-orbit configuration of the hardware in accordance with SSP 30599. Functional diagrams shall be submitted and supplemented with descriptions of interfaces and operations.			
Delta Mission Resource Allocation Document (MRAD #2) d) d) Pg. 117	6)Updated Orbital vehicle dynamics and mass properties	6)Updated Orbital vehicle dynamics	NA/ Administrative Change Deleted and mass properties	NA/ Administrative change
Co-2: FINAL FLIGHT PRODUC TS Pg. 122	DATA REQUIREMENT DESCRIPTION Number: C6-2 C6-2; FINAL FLIGHT PRODUCTS DESCRIPTION/PURPOSE: NASA will use hardware and analytical data provided by the Contractor in the Initial MRAD to develop the preliminary flight products, crew procedures, and flight rules. This DRD provides a mechanism for the Contractor to provide technical input and comments to the NASA developed procedures. These procedures include maintenance, malfunction, timelines, and crew training plans for both the orbital vehicle and cargo. These products will ultimately be used by NASA as flight documents for flight crew and ground personnel. The Contractor shall review and provide updates to the final set of flight products delivered at L 2 weeks. DATA REQUIREMENTS: The Contractor shall provide updates to NASA-provided final flight procedures and flight rules. These procedures and timelines shall address all orbital vehicle procedures and sequences, as well as any required cargo mission unique procedures. Flight procedures the Contractor shall review and provide technical input into include: a) Nominal and off-nominal operations of the orbital vehicle and payloads. The areas to be covered include Robotics Operations/Checklists, Contingency Operations, Vestibule Operations, Rendezveus Operations/Checklist, On-Orbit Maintenance, Flight Rule Inputs PCS Displays, On-orbit checkout (berthing).	Not included / DRD deleted	NA/ Administrative Change	NA/ Administrative change

Contractor: Space Exploration Technologies

Contract Number: NNJ09GA04B

Attachment 1 Contract Changes Matrix per Modification 53 and Task Order 1 Revision J

		b)Vehicle updates to Guidance and Trajectory 1)Vehicle trajectory data and 3-sigma dispersions analysis 2)Vehicle navigational sensor data (performance, accuracy, limitations and constraints)	Changes Matrix per Modification 53 a		
24	C6-3: Delta Integrated Cargo Hazard Report Pg. 123	DATA REQUIREMENT DESCRIPTION Number: C6-3 C6-3: Delta integrated Cargo Hazard Report DESCRIPTION/PURPOSE: The Contractor shall provide updates to integrated cargo hazard reports. DATA REQUIREMENTS: Any updates to DRD C5-2 Integrated Cargo Hazard Report, utilizing the same data requirements.	Not included / DRD deleted	NA/ Administrative Change	NA/ Administrative change
25	C6-4 Final Mission Resource Allocation Document (MRAD #3) Pg. 124 h)# 4	4) Final Mass property data - Actual weighted values for Dragon vehicle	Not included/ Deleted from DRD	NA/ Administrative Change	NA/ Administrative change
26	C6-4 Final Mission Resource Allocation Document (MRAD #3) Pg. 119 b) #6	Not included	Dipdated structural or thermal analysis as required for vehicle environments or agreed to manifest changes which include the tiennal date in bins as agreed.	NAV Administrative Change Updating MRAD to cover flight specific MRAD update on thermal contamination analysis	NA/ Administrative change
27	Attachme nt V.L. ISS Interface Requirem ents Document Pg. 152	D excluding DCN B	SSP 50808 Rev C, plus DCN 95,127 and 134	NA Administrative Change Brings us up to speed with what we're verifying to for Space-X 3.	NA/ Administrative change
28	2.1.1 2.2 Mission Integratio in Review	At not later than L-13 months, the Contractor shell allow NASA to participate in a review that provides NASA with a current mission integration status.	At not later than L-12 months, the Contractor shall allow NASA to participate in a review that provides NASA with a current mission integration status.	NA/ Administrative Change	335

AMENDME	NT OF SOLICITATION/MODIFIC	CATION OF CONTRACT	1. CONTRACT ID CODE	F/GE OF PAGES
2. AMENDME	NI/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISIT OF PURCHASE REQ. NO.	5. PROJECT NO. (h apulicable)
54		07/29/2013	4200495049	121122
6. ISSUED BY	CODE		7 ADM NISTERED BY (if other then Item 6)	CODE
Attn: B	hason Space Center C / Renia Vanquez SA Parkway TX 77038-3696			
E. NAME AND	ADDRESS OF COVERACTOR (%) . drs	at, county, State and TIP Cota)	(X) BA. AMENDMENT OF SOLICITATION NO.	
PACEX				
ROCKEI			33, DATED (SEE ITLM 11)	
E-WTHOEN	OE CA 90250			
			100. MODIFICATION OF CONTRACT/ORI	CER NO.
			108. DATED (SEE ITEM 12)	
COUE 33	VI.8	FACILITY CODE	7 12/23/2004	
		11. THIS TEM ONLY APPLIES T	O AMENDMENTS OF SOLICITATIONS	
The above to	numbered solvitation is amended as set t	forth in Sent 14. The hour and date ap-	edited for receipt of Offers i	s extended. I is not extended.
to the solicit	ution and this amendment, and is receive.	id piter to the opening hour and date s	y be made by lefegram or lefter, provided each telegocifies. et Increase:	(b) (4)
iou Sch			DERS, IT MODIFIES THE CONTRACT/ORDER NO.	
	B. THE ABOVE NUMBERED CONTINA epprejulation date, etc.) SET FORT C. THIS SUPPLEMENTAL AGREEMEN		CT THE ADMINISTRATIVE CHANGES (SCOT 44) Ch MITHORITY OF FAR 43.109(b). D'AUTHORITY OF:	angos in paying office,
	D. OTHER (Specify type of mou ficality	n and autho (lv)		
х	II.A.10 Changes- Fir	ted Price (Deviatio	n) (FAR.52.243-1) (AUG 198	37) Aternate II
E. IMPORTAN	T: Contractor A is not.	is required to sign this document	and relum copies to the	Issuing office.
14, DESCR P	TION OF AMENDME (TIMODIFICATION	(Organized by UC) section headings	, incluring solicitatic nlocutract subject matter where	r feasible. }
4.5				
	N 414			
Except as pro-	vided herein, all terms and conditions of t	he document referenced in Item 9A or	10A, as heretofore changed, remains unchanged an	nd in full force and effect.
The same of the sa	NO TITLE OF SIGNER (Type or print)		18A. NAME AND TITLE OF CON RAC'ING	
			West Show Various Kinds	my 1 Candrain
	DT. 12.0000 A.B.		A STATE OF THE OWNER OWNER OF THE OWNER	THE PATE SIGNES
	ACTOR/OFFEROR	15C. DATE SIGNED	Millerale	1uc. DATE SIGNED 07/29/2013
	(Signature of norsen suthons of to sign)		(3 produce of Ochtracting Officer)	37AKD LED 50RM 30 (REV. 10-93)

NSN 7540-01 152-8070 Previous edition unusuble STANDARD FORM 30 (REV. 10-93) Prescribed by GSA FAR (48 CFR) 53.743

- 1. Increase funds on this contract from (b) (4)
- 2. Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):

Of the total price of CLINs 0001 through 0004, the sum of (b) (4)

- (a) is presently available for payment and allotted to this contract.
- (c)(1) It is contemplated that funds presently allotted to this contract will cover work to be performed until (b) (4)
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

2. AMENDI					[1
	MENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. RE	QUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (// applicable)
000055		08/20/2013			
6. ISSUED	_	JSC JSC	7. AZ	MINISTERED BY (If other than item 5)	CODE
-	Johnson Space Center				
	BG / Kenia Vasquez WASA Parkway		i i		
	on TX 77058-3696				
NAMEA	ND ADDRESS OF CONTRACTOR (No.	of all county Visits and 719 Code)		L AMENDMENT OF SOLICITATION NO.	
	·		(x)		
PACEX				DATED (SEE ITEM 11)	· · · · · · · · · · · · · · · · · · ·
ROCK	ET KD RNE CA 90250		"	S. DATED GOE HEM 117	
WMT IIO:	MID CR SV250				
				IA. MODIFICATION OF CONTRACT/ORDE NJ 0 9GA 0 4B	N NU
			10	B. DATED (SEE ITEM 13)	
CODE	3BVL8	FACILITY CODE		12/25/2004	
		11, THE TEN ONLY IN PLE	E TO AVENS	ELIS OF TOLK ANCHO	
		set forth in item 14. The hour and date			stended. Life not extended.
	icet acknowledge receipt of this amends and 15, and refurning			tion or as amended, by one of the following r relipt of this amendment on each copy of the	
separale	letter or telegram which includes a refe	sence to the solicitation and amondmen	t numbers. Fr	ALURE OF YOUR ACKNOWLEDGEMENT	TO BE RECEIVED AT
THE PU	ACE DESIGNATED FOR THE RECEIP	T OF OFFERS PRIOR TO THE HOUR	AND DATE SE	PECIFIED MAY RESULT IN REJECTION OF	YOUR OFFER, If by
to the an	mis amenomen you desire to change a ligitation and this amendment, and is re	on other miresky submitted, such change colved polor to the opening hour and da	nally be made to epicated.	by telegram or letter, provided each talegran	IN CALL CONTRACT OF SELECTION
2. ACCQU	INTING AND APPROPRIATION DATA		The last terms of the last ter		
see Sc	chedule				
	13 THIS ITEM ONLY APPLICE	TO DODIFICATION OF CONTRACTER	ORDERS, IT	ODIFIES THE CONTRACT/ORDER NO. AS	DESCRIBED IN ITEM 14.
CHECK ON	E A THIS CHANGE ODDED to reco	IFA BIRSHANT TO BREAK WHO	N THE CHAN	OFS SET FORTH IN ITEM 14 ARE MADE I	N THE CONTRACT
	ORDER NO. IN ITEM TOA.	and a number of the fall and the fall	/ III - OI PA	ges set forth in ITEM 14 are wade i	
	B. THE ABOVE NUMBERED COM	TRACT/ORDER IS MODIFIED TO RET	FLECT THE A	DMINIBTRATIVE CHANGES (#300) as chang	es in paying office.
		ORTH IN ITEM 14, PURSUANT TO TH	E AUTHORIT	Y OF FAR 43.103(b).	
x	appropriation dels, etc.) SET F				
х		ERENT'IS ENTERED INTO PURBUAN	T TO ALTHO	STY OF	
x			TTO ALTHO	शि∀ oF	
x		ERIERI TS ERVERED INTO PURBUAN	т то артно	सा र ठार-	
	C. THIS SUPPLEMENTAL AGREE	eken i 18 er seket into purbuan ekon - d cuthonlyj			
E IMPORT	C. THIS SUPPLEMENTAL AGREE D. OTHER REPORT OF THE A	Lisen i TS EXTERLED INTO PURBUAN Library Sol. (b) is required to sign this docum	nersk sind inition		
L IMPORT	C. THIS SUPPLEMENTAL AGREE D. OTHER (SET OF 1990 OF MODE AS ANT: CONTRICTOR DISTRICTION OF AMENDMENT/MODIFICA-	Lisen i TS EXTERLED INTO PURBUAN Library Sol. (b) is required to sign this docum	nersk sind inition		
IMPORT	C. THIS SUPPLEMENTAL AGREE D. OTHER REPORT OF THE A	Lisen i TS EXTERLED INTO PURBUAN Library Sol. (b) is required to sign this docum	nersk sind inition		
IMPORT	C. THIS SUPPLEMENTAL AGREE D. OTHER (SET OF 1990 OF MODE AS ANT: CONTRICTOR DISTRICTION OF AMENDMENT/MODIFICA-	Lisen i TS EXTERLED INTO PURBUAN Library Sol. (b) is required to sign this docum	nersk sind inition		
IMPORT	C. THIS SUPPLEMENTAL AGREE D. OTHER (SET OF 1990 OF MODE AS ANT: CONTRICTOR DISTRICTION OF AMENDMENT/MODIFICA-	Lisen i TS EXTERLED INTO PURBUAN Library Sol. (b) is required to sign this docum	nersk sind inition		
L IMPORT	C. THIS SUPPLEMENTAL AGREE D. OTHER (SET OF 1990 OF MODE AS ANT: CONTRICTOR DISTRICTION OF AMENDMENT/MODIFICA-	Lisen i TS EXTERLED INTO PURBUAN Library Sol. (b) is required to sign this docum	nersk sind inition		
IMPORT	C. THIS SUPPLEMENTAL AGREE D. OTHER (SET OF 1990 OF MODE AS ANT: CONTRICTOR DISTRICTION OF AMENDMENT/MODIFICA-	Lisen i TS EXTERLED INTO PURBUAN Library Sol. (b) is required to sign this docum	nersk sind inition		
IMPORT	C. THIS SUPPLEMENTAL AGREE D. OTHER (SET OF 1990 OF MODE AS ANT: CONTRICTOR DISTRICTION OF AMENDMENT/MODIFICA-	Lisen i TS EXTERLED INTO PURBUAN Library Sol. (b) is required to sign this docum	nersk sind inition		
IMPORT	C. THIS SUPPLEMENTAL AGREE D. OTHER (SET OF 1990 OF MODE AS ANT: CONTRICTOR DISTRICTION OF AMENDMENT/MODIFICA-	Lisen i TS EXTERLED INTO PURBUAN Library Sol. (b) is required to sign this docum	nersk sind inition		
L IMPORT	C. THIS SUPPLEMENTAL AGREE D. OTHER (SET OF 1990 OF MODE AS ANT: CONTRICTOR DISTRICTION OF AMENDMENT/MODIFICA-	Lisen i TS EXTERLED INTO PURBUAN Library Sol. (b) is required to sign this docum	nersk sind inition		
L IMPORT	C. THIS SUPPLEMENTAL AGREE D. OTHER (SET OF 1990 OF MODE AS ANT: CONTRICTOR DISTRICTION OF AMENDMENT/MODIFICA-	Lisen i TS EXTERLED INTO PURBUAN Library Sol. (b) is required to sign this docum	nersk sind inition		
E IMPORT	C. THIS SUPPLEMENTAL AGREE D. OTHER (SET OF 1990 OF MODE AS ANT: CONTRICTOR DISTRICTION OF AMENDMENT/MODIFICA-	Lisen i TS EXTERLED INTO PURBUAN Library Sol. (b) is required to sign this docum	nersk sind inition		
E IMPORT	C. THIS SUPPLEMENTAL AGREE D. OTHER (SET OF 1990 OF MODE AS ANT: CONTRICTOR DISTRICTION OF AMENDMENT/MODIFICA-	Lisen i TS EXTERLED INTO PURBUAN Library Sol. (b) is required to sign this docum	nersk sind inition		
E IMPORT	C. THIS SUPPLEMENTAL AGREE D. OTHER (SET OF 1990 OF MODE AS ANT: CONTRICTOR DISTRICTION OF AMENDMENT/MODIFICA-	Lisen i TS EXTERLED INTO PURBUAN Library Sol. (b) is required to sign this docum	nersk sind inition		
E IMPORT. 14. DESCR See Co	C. THIS SUPPLEMENT ALL AUKLED TO CHER (SEC. 1) Type of moce of the control of the	EMINITS ENTERED INTO PURBUAN Into and cuthonly) not. (b) is required to sign this document on the city of the document arterenced in item 94.	nert and return ngs, including A or 10A, he		n full force and e, act.
E IMPORT. 14. DESCR See Co	C. THIS SUPPLEMENTAL AUXILIANTS CONTROL OF AMENDMENTAMODIFICATION Page	EMINITS ENTERED INTO PURBUAN Into and cuthonly) not. (b) is required to sign this document on the city of the document arterenced in item 94.	nert and return ngs, including A or 10A, he		n full force and e, act.
E IMPORT. 14. DESCR 6.ee Co	C. THIS SUPPLEMENT ALL AUKLED TO CHER (SEC. 1) Type of moce of the control of the	EMINITS ENTERED INTO PURBUAN Into and cuthonly) not. (b) is required to sign this document on the city of the document arterenced in item 94.	norst and return inge, including to 10.A. — he		n full force and e, act.
E IMPORT. 14. DESCR See Co	C. THIS SUPPLEMENT ALL AUKLED TO CHER (SEC. 1) Type of moce of the control of the	EMINITS ENTERED INTO PURBUAN Into and cuthonly) not. (b) is required to sign this document on the city of the document arterenced in item 94.	norst and return inge, including A or 10.A. — he 18.A. Ara		n full force and e, act.

Provious edition enuesble

STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (46 CFR) 53.243 The purpose of this modification is to 1) Correct an error on the table for Section II.A.6 Generic Mission Payment Schedule (Post ISS Integration) 2) Incorporate by reference FAR clause 52.219-28, Post-Award Small Business Program Representation 3) Update the Thermal Binning Data section of the Statement of Work.

1. The Amount (% of Standard Mission Price) for Milestone (b) (4) for Mission (b) (4) spectively. This modification corrects the error by switching the milestone percentages, so Milestone reads (b) (4) nd Milestone reads (b) (4) The following represents the updated table on page 26:

Table II.A.6-1B: Generic Mission Payment Schedule (Post-ISS Integration)

Mission Level Milestone	Invoice Submission Date	Major Resupply Mission Milestone	Amount (% of Standard Mission Price)
1	I21* L-24** L-26***	Authorization to Proceed (ATP)	(b) (4)
2	L-18	Vehicle Baseline Review (VBR)	\ / \ /
3	L-12	Mission Integration Review (MIR)	
4	L-10	External Integration Review	
5	L-6	Cargo Integration Review (CIR)	
6	L	Launch	
7	Cargo Delivery	Delivery	

- FAR clause 52.219-28, Post-Award Small Business Program Representation will be incorporated to the conformed contract under II.A.33 on page 53.
- The following constitute updates to the Statement of Work:
 Revision for Page 114, C4-2: Initial Mission Resource Allocation Document

(MRAD #1), Data Requirements, item d) 5):

From: Thermal/environmental assessment including Launch To Activation Analysis for all unpressurized cargo and flight profile. Also includes thermal data

NNJ09GA04B Modification: 55

needed to support trunk contamination assessments. Thermal data shall be provided in accordance with the following: Space X shall supply case-consistent thermal data of Dragon trunk and payload thermal nodes during each MRAD cycle.

To: Excluding SpeceX 3 OPALS and HDEV payloads. Thermal/environmental assessment including Launch To Activation Analysis for all terpressurized cargo and flight profile, including thermal data needed to support trunk contamination assessments. Space X shall supply the maximum and minimum operating temperature and percent of time spent within specified temperature ranges.

(b) (4)

Revision for Page 124, C6-4: Final Mission Resource Allocation Document (MRAD #3), Data Requirements, item h) 6):

<u>From:</u> Updated structural or thermal analysis as required for vehicle environments or agreed to manifest changes which include the thermal data in bins as agreed.

To: Updated structural or thermal analysis, excluding SpaceX 3 OPALS and HDEV payloads, as required for vehicle environments or agreed to manifest changes which include the thermal data in the temperature range bins, based on

(b) (4)

All other terms and conditions remain unchanged and in full force and effect.

MENDMENT OF SOLICITATION/MODIFIC	CATION OF CONT	RACT	1, CONTRACT ID CODE	PAGE OF	2
AMEND: JENT MODIFICATION NO.	13. EFFECTIVE DAT		QUISITION/PURCHASE REQ. NO.	5, PROJECT NO. (il acplicable)
	08/01/2013	1:00	0487784		
ISSUED BY CODE		7. Al	OMINISTERED BY (If owner than Item 6)	CODE	
ASA/Johnson Space Center ttn: BG / Kenia Vasquer 101 NASA Parkway ouston TX 77058-3696					
NAME AND ADDRESS OF CONTRACTOR To , see	eet, county, State and ZIP C	(x) (x)	A, AMENDMENT OF SOLICITATION NO.		
PACEX ROCKET RD ANTHORRE CA 90250			B. DATED (SEE ITEM 11)		
WILLIAM CA JUZZY		× 1	0A MODIFICATION OF CONTRACT/ORI INJUGAD48	DER NO.	
			OB. DATED (SEE ITEM 13)		
CODE AMOUNT 9	FACILITY CODE		12/23/2004		
SOME SEATS	11. THIS ITEM O	NEY APPLIES TO AMEN	DMENTS OF SOLICITATIONS		
CHECK ONE A THIS CHANGE ORDER IS ISSUE: ORDER NO, IN ITEM IUA.	D PURSUA IT TO: (Sp	selly sutherity) THE CHA	MODIFIES THE CONTRACT/ORDER NO. NGES SET FORTH IN ITEM 14 AP.5 MAC ADMIN.STRATIME CHANGES (such an of	DE IN THE CONTRACT	14.
C. THIS SUPPLEMENTAL AGREEM	ENT IS ENTERED IN IS	O PURSUANT 10 AUTH	OR:TY OF:		
b. OTHER (Specify type of moduces)	on and euthority)		10	67)	
X II.A.10 Changes- F:			FAR. 52.243-1) (AUG 19		1-
E. IMPORTANT: Contractor × is not. 14. DESCRIPTION OF AMENOMENT/MODIFICATION		on this document and returned including		e issulng office. re fessible.)	
See Continuation Page					
Except as provided haren, all terms and conditions of 15A. NAME AND TITLE OF SIGNER, Type or party	of the discument referan	iced in Itam 9A or 10A, as	insretofure changed, remains unchanged	and in full force and effect.	,
		P	neesah M. Vaughn	25 - 20	<u> </u>
15B. CONTRACTOR/OFFEROR	15	C. DATE SIGNED 1	B, UNITED STATES OF AMERICA	0.007	6. DATE SIGNED 8/21/2013
("ignature of per an authorized to a gri		K	Signature of Collinson and Olivon	er)	0/21/2013

NSN 7540-01-152-6970 Previous adition unusuble STANDARD FORM 30 (REV. 10-83) Presoribed by GSA FAR (46 CFR) 53-243

- 1. Increase funds on this contract from (b) (4)
- 2. Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):

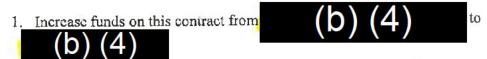
Of the total price of CLINs 0001 through 0004, the sum of (b) (4)

- (a) is presently available for payment and allotted to this contract.
- (c)(1) It is contemplated that funds presently allotted to this contract will cover work to be performed until
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

E. ISSUED BY CODE T. ADSINISTERED BY (if other than flam d) T. ADSINISTERED BY (if other than flam d) CODE NASA JOANSON Space Center Little: BS / Kenia Vasquaz 2.0.01 NASA Parkwa? ROUGED TR. 77058-3596 E. NAME AND ADDRESS OF CONTRACTOR (inc., wheel, county, sicle and 2th Code) E. NAME AND ADDRESS OF CONTRACTOR (inc., wheel, county, sicle and 2th Code) E. NAME AND ADDRESS OF CONTRACTOR (inc., wheel, county, sicle and 2th Code) E. NAME AND ADDRESS OF CONTRACTOR (inc., wheel, county, sicle and 2th Code) E. NAME AND ADDRESS OF CONTRACTOR (inc., wheel, county, sicle and 2th Code) E. NAME AND ADDRESS OF CONTRACTOR (inc., wheel, county, sicle and 2th Code) E. NAME AND ADDRESS OF CONTRACTOR (inc., wheel, county, sicle and 2th Code) E. NAME AND ADDRESS OF CONTRACTOR (inc., wheel, county, sicle and 2th Code) E. NAME AND ADDRESS OF CONTRACTOR (inc., wheel, county, sicle and 2th Code) E. NAME AND ADDRESS OF CONTRACTOR (inc., wheel, county, sicle and 2th Code) E. NAME AND ADDRESS OF CONTRACTOR (inc., wheel, county, sicle and 2th Code) E. NAME AND ADDRESS OF CONTRACTOR (inc., wheel, county, sicle and 2th Code) E. NAME AND ADDRESS OF CONTRACTOR (inc., wheel, county, sicle and 2th Code, county, sicked and address on the code and and address on the code, code and address on the			
A MEDINENTIAL DE CATANA D. 18 ISSUED BY CODE		1	
ESSUED BY CODE SSC TADSPRISTERED BY (If other than item 6) CODE NASA / Johnson Space Central ALTO: 93 / Kenia Vasquez 2101 NASA Parkway Redictor TX 77058-3596 B. NAME AND ADDRESS OF CONTRACTOR (INC., wired, county, suche and 21F Cost) B. NAME AND ADDRESS OF CONTRACTOR (INC., wired, county, suche and 21F Cost) B. NAME AND ADDRESS OF CONTRACTOR (INC., wired, county, suche and 21F Cost) B. NAME AND ADDRESS OF CONTRACTOR (INC., wired, county, suche and 21F Cost) B. NAME AND ADDRESS OF CONTRACTOR (INC., wired, county, suche and 21F Cost) B. NAME AND ADDRESS OF CONTRACTOR (INC., wired, county, suche and 21F Cost) B. NAME AND ADDRESS OF CONTRACTOR (INC., wired, county, suche and 21F Cost) B. NAME AND ADDRESS OF CONTRACTOR (INC., wired, county, suche and 21F Cost) B. NAME AND ADDRESS OF CONTRACTOR (INC., wired, county, suche and 21F Cost) B. NAME AND ADDRESS OF CONTRACTOR (INC., wired, county, suche and 21F Cost) B. NAME AND ADDRESS OF CONTRACTOR (INC., wired, county, suche and 21F Cost) B. NAME AND ADDRESS OF CONTRACTOR (INC., wired, county, suche and 21F Cost) B. NAME AND ADDRESS OF CONTRACTOR (INC., wired, county, suche and 21F Cost) B. NAME AND ADDRESS OF CONTRACTOR (INC., wired, county, suche and 21F Cost) B. NAME AND ADDRESS OF CONTRACTOR (INC., wired, county, suche and date provided of remains of SOLICITATION S B. NAME AND ADDRESS OF CONTRACTOR (INC., wired, county, such and date specially a social of the suche and extended to the solicitation of the solicitation of the solicitation of the solicitation and some and county and address of charge of the bound and date some address of the solicitation and anternation of the solicitation and anternation and antern	AME IDMENT/MODIFICATION NO.	MATERIAL STREET	The state of the s
AND A Johnson Space Center Atto: 33 / Kenia Vasquez 2101 NASA Parkway Boucton TX 77058-3596 8. NAME AND ADDRESS OF CONTRACTOR (No., seried, county, Suche and 24F Costs) 8. NAME AND ADDRESS OF CONTRACTOR (No., seried, county, Suche and 24F Costs) 8. NAME AND ADDRESS OF CONTRACTOR (No., seried, county, Suche and 24F Costs) 8. NAME AND ADDRESS OF CONTRACTOR (No., seried, county, Suche and 24F Costs) 8. NAME AND ADDRESS OF CONTRACTOR (No., seried, county, Suche and 24F Costs) 8. NAME AND ADDRESS OF CONTRACTOR (No., seried, county, Suche and 24F Costs) 8. NAME AND ADDRESS OF CONTRACTOR (No., seried, county, Suche and 24F Costs) 8. NAME AND ADDRESS OF CONTRACTOR (No., seried, county, Suche and 24F Costs) 8. NAME AND ADDRESS OF CONTRACTOR (No., seried, county, Suche and 24F Costs) 8. NAME AND ADDRESS OF CONTRACTOR (No., seried, county, Suche and 24F Costs) 8. NAME AND ADDRESS OF CONTRACTOR (No., seried, county, Suche and 24F Costs) 8. NAME AND ADDRESS OF CONTRACTOR (No., seried, county, Suche and 24F Costs) 8. NAME AND ADDRESS OF CONTRACTOR (No., seried, county, Suche and 24F Costs) 8. NAME AND ADDRESS OF CONTRACTOR (No., seried, county, Suche and 24F Costs) 8. NAME AND ADDRESS OF CONTRACTOR (No., seried, county, Suche and 24F Costs) 8. NAME AND ADDRESS OF CONTRACTOR (No., seried, county, Suche and 24F Costs) 8. NAME AND ADDRESS OF CONTRACTOR (No., seried, county, Suche and 24F Costs) 8. NAME AND ADDRESS OF CONTRACTOR (No., seried, county, Suche and 24F Costs) 8. NAME AND ADDRESS OF CONTRACTOR (No., seried, county, Suche and 24F Costs) 8. NAME AND ADDRESS OF CONTRACTOR (No., seried, county, Suche and 24F Costs) 8. NAME AND ADDRESS OF CONTRACTOR (No., seried			
ELICIT 193 / Ken in Vasquez 2011 NASA Paz kway BLOCKET RD BANTHORNE CA 90250 CODE DEVILE FACULTY CODE THE STEM ORD PROBLET TO the board of the selection of submitted and selection of submitted by case of the following methods: (a) By competing supported effect or to legar and with a reference to the solicitation and this amendment you dealer or charge an other stready, submitted such charges and the solicitation of this submitted or the submitted or the solicitation of the submitted or th		03,	
PACENT RD ANTHORNE CA 90250 INDUSTRIES TO SECURE TO AMENDMENT OF CONTRACT DIDERING. INDUSTRIES TO AMENDMENT OF CONTRACT DIDERING. INDUSTRIES TO AMENDMENT OF SECURITIONS INDUSTRIES TO AMENDMENT OF SECURITIONS INDUSTRIES TO AMENDMENT OF SECURITIONS INDUSTRIES AND A SECUR	.ttn: BG / Kenia Vasquez 2101 NASA Parkway	r.	
SOURCE TRD (ANTHORNE CA 90250) EAST-TY COSE THIS above numbered scionation is amended as set from fultion 14. The hour and date specified for receipt of Offers The above numbered scionation is amended as set from fultion 14. The hour and date specified for receipt of Offers (Cottes must acknowledge receipt of this amendment prior to the hour and date specified for receipt of Offers (Cottes must acknowledge receipt of this amendment prior to the hour and date specified for receipt of Offers (Cottes of 15, and returning) (Cottes of 15, and return	NAME AND ADDRESS OF CONTRACTOR (No., sireal, county, State and ZIP Code)	(x) 9A. AMENDMENT OF SOLICITATION NO.
BATTHORNE CA 90250 IDA. MODIFICATION OF CONTRACT DRIDER NO. NNJOYGRAV 4B THE above numbered addiction is amended as set form to the hour and date operated in the solicitation or es amended, it is not extended. Offers the additional or established or establis	PACEX		
The above numbered sclicitation is amended as set form to item 14. The hour and date specified for receipt of Offers It is his trem only applies to amendment of offers It is above numbered sclicitation is amended as set form to item 14. The hour and date specified for receipt of Offers It is above numbered sclicitation is amended as set form to item 14. The hour and date specified for receipt of Offers It is a standard, to not offer methods to the following methods: (a) By composing accept of the amendment of the solicitation or as amended to each copy of the offer submitted; or (b) By acknowledging accept of this amendment on each copy of the offer submitted; or (b) By acknowledging accept of this amendment on each copy of the offer submitted; or (b) By acknowledging accept of this amendment on each copy of the offer submitted; or (b) By acknowledging accept of this amendment on each copy of the offer submitted; or (b) By acknowledging accept of this amendment on each copy of the offer submitted; or (b) By acknowledging accept of this amendment on each copy of the offer submitted; or (b) By acknowledging accept of this amendment accept and the solicitation and the accept of the solicitation and the acceptance of the solicitation and the amendment amendment and acceptance of the solicitation of the amendment amendment and acceptance of the contract of the solicitation on the solicitation on the solicitation and the amendment and acceptance of the solicitation on the solicitation of the acceptance of the solicitation of the solicitation and the solicitation of the solicitation and the solicitation of the solicitation and the solicitation of the solicitation of the solicitation and the solicitation of the solicitation of the solicitation of the solicitation of the solicitation of the solicitation of the solicitation of the solicitation of the solicitation of the solicitation of the solicitation of the solicitation of the solicitation of the solicitation of the solicitation of the solicitation of the solicitat			98. DATED (SEE ITEM 11)
The above numbered sciolation is amended as set form to the hour and date specified in the solicitation or receipt of this amended as set form to the hour and date specified in the solicitation or receipt of this amended as set form to the hour and date specified in the solicitation or receipt of the following muthods: (a) By completing them 8 and 15, and returning copies of the amendment prior to the hour and date specified in the solicitation or receipt of the following muthods: (a) By completing separate lattur or begram which includes a reference to the solicitation and amendment prior by the hour and date specified in the solicitation or receipt of or the submitted; or (a) By acknowledging sociept of this amendment on each copy of the offer submitted; or (a) By acknowledging sociept of this amendment on each copy of the offer submitted; or (a) By acknowledging sociept of this amendment on each copy of the offer submitted; or (b) By acknowledging sociept of this amendment on each copy of the offer submitted; or (a) By acknowledging sociept of this amendment on each copy of the offer submitted; or (b) By acknowledging sociept of this amendment on each copy of the offer submitted; or (a) By acknowledging sociept of this amendment on each copy of the offer submitted; or (b) By acknowledging sociept of this amendment on each copy of the offer submitted; or (b) By acknowledging sociept of this amendment on each copy of the offer submitted; or (b) By acknowledging sociept of this amendment on each copy of the offer submitted; or (b) By acknowledging sociept of this amendment on each copy of the offer submitted; or (b) By acknowledging sociept of this amendment on each copy of the offer submitted; or (c) By acknowledging sociept of this amendment on each copy of the offer submitted; or (c) By acknowledging sociept of this amendment on each copy of the offer submitted; or (c) By acknowledging society of the offer submitted of the solicitation on the submitted; by acknowledging society of the offer submitted on the	AMTHORNE CA 90250		
The above numbered solicitation is amended as set fortin to lice 14. The hour and date specified in the solicitation or as amended as set fortin to lice 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 amendment or each copy of the offer submitted; or (p) By acknowledging receipt of this amendment or each copy of the offer submitted; or (p) By acknowledging receipt of this amendment or each copy of the offer submitted; or (p) By acknowledging receipt of this amendment or each copy of the offer submitted and prevailtant numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DISSIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER, if by written of this amendment you desire to change on other strands, submitted, such change may be reade by teleptom or letter, provided each telegram or letter makes reference to the oblicitation and this amendment and is received prior to the opening hour and onte specified. 12. ACCOUNTING AND APPROPRIATION DATA (if requires) 13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14. CHECK OFFE A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify eutherity) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A. B. THE ADOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE AUMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b). C. THES SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: D. OTHER (Specify type of readdiscable and authority)			X NNJO9GAU4B
The above numbered esticitation is amended as set forting item 14. The hour and date specified for receipt of Offers is extended, is not extended. Others must acknowledge receipt of this amendment prior to the hour and date specified for receipt of Offers is extended, is not extended. Others must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended in each copy of the offer submitted; or (a) By acknowledge receipt of this amendment on each copy of the offer submitted; or (b) By acknowledge receipt of this amendment on each copy of the offer submitted; or (b) By acknowledge receipt of this amendment on each copy of the offer submitted; or to be preceded in the solicitation and acknowledge receipt of the submitted and the specified of this amendment on each copy of the offers PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN Relection of YOUR OFFER, if by writted of this amendment you desire to change an offer stready, submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the objection and this amendment and is received prior to the opening hour and onte specified. 12. ACCOUNTING AND APPROPRIATION DATA (If required) 13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14. CHECK CIPE 13. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify sutherity) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A. B. THE ADOVE NUMBERED CONTRACT/ORCER 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). C. THES SUPPLEMENTAL AGREEMENT IS ENTERED INTO FURSUANT TO AUTHORITY OF:			100, LATED (SEE ITEM 13)
The above numbered assistation is amended as set forth is litera 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 muthods: (a) By completing occips of the amendment; (b) By acknowledging receipt of this amendment or each copy of the offer submitted; or (b) By acknowledging receipt of this amendment of offer submitted; or (b) By acknowledging receipt of this amendment of offer submitted; or (c) By acknowledging receipt of this amendment of the solicitation and amendment unders. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE OF SIGNATED 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 ofter shead, submitted, such change may be made by telegram or latter, provided each telegram or latter makes refurence to the excitation and this amendment and is received prior to the opening hour and onto specified. 12. ACCOUNTING AND APPROPRIATION DATA (if required) 13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14. CHECK CHE A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify eutherity). THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A. B. THE ACOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, std.). SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b). C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO FURSUANT TO AUTHORITY OF FAR 43.103(b). D. OTHER (Specify type of modification and subharity).	CODE DOUT O	FACILITY CODE	
The above numbered sciscitation is amended as set forth to item 14. The hour and date specified for recisip of Offers is extended. It is 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 compressing terms of each copy of the common of the following methods: (a) By compressing items of end 15, and returning cupies of the amendment; (b) By acknowledging sociept of this amendment on each copy of the offer submitted; or (b) By depended latter or tolegram which includes a reference to the solicitation and amendment prior to the Included a reference to the solicitation and amendment prior to the PURI AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an often stread, submitted, such change may be made by tell-gram or lotter, provided each tell-gram or letter makes reference to the excitation and this amendment and is received prior to the opening hour and onto specified. 12. ACCOUNT ING AND APPROPRIATION DATA (if required) 13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14. CHECA CIPE A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify eatherity) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A. B. THE ACOVE NUMBERED CONTRACT/ORCER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF PAR 43.103(b). C. THES SUPPLEMENTAL AGREEMENT IS ENTERED INTO FURSUANT TO AUTHORITY OF: D. OTHER (Specify type of modification and authority)		7.0.000	
B. THE ABOVE NUMBERED CONTRACTIONCER 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). C. THES SUPPLEMENTAL AGREEMENT IS ENTERED INTO FURSUANT TO AUTHORITY OF: D. OTHER (Specify type of modification and authority)	The above numbered sciicitation is amended Offers must acknowledge receipt of this amended them 8 and 15, and returning separate latter or talegram which includes a THE PLACE DESIGNATED FOR THE RECEIVITUE of this amendment you desire to chang to the excicturion and this amendment and is 12, ACCOUNTING AND APPROPRIATION DA	as set forin to itera 14. The hour and di- ndment prior to the hour and date epocal- occies of the amendment; (b) By a electrice to the solicitation; and amendin the OP OPPERS PRIOR TO THE HOUL to an ofter stready submitted, such others a received prior to the opening hour and of	six specified for receipt of Offers is extended. It not extended, and in the solicitation or as amended, by one of the following methods: (a) By completing acknowledging receipt of this emandment on each ecpy of the offer submitted; or (a) By next numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT IR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER, if by ge may be made by telegram or letter, provided each telegram or letter makes reference onte specified.
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO FURSUANT TO AUTHONITY OF: D. OTHER (Specify type of modification and authority)	The above numbered sciliotetion is amended Offers must acknowledge receipt of this amenitums 8 and 15, and returning separate letter or tolegram which includes an THE PLACE DESIGNATED FOR THE RECEIVITUE of this amendment you desire to change to the colicitation and this amendment and is 12. ACCOUNTING AND APPROPRATION DATE.	as set forin is itera 14. The hour and dis- ndment prior to the hour and date operation occurs of the amenament; (b) By a reference to the solicitation and amendment of OFFERS PRIOR TO THE HOUR or an often stread, submitted, such chang received prior to the opening hour and of TA (If requires)	ske specified for receipt of Offers is extended. I is not extended, is not extended, is in the solicitation or as amended, by one of the following methods: (a) By completing acknowledging receipt of this emendment on each copy of the offer submitted; or (a) By nearly numbers. FAILURE OF YOUR ACKNOWLEDGE MENT TO BE RECEIVED AT IR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by ge may be made by telegram or letter, provided each telegram or letter makes reformed onto specified. [Not Increase:
D. OTHER (Specify type of modification and authority)	The above numbered scionation is amended Offers must acknowledge receipt of this amenitums 8 and 15, and returning departies letter or tolegram which includes an THE PLACE DESIGNATED FOR THE RECEIVITUE of this amendment you desire to change to the suicitation and this amendment and is 12. ACCOUNTING AND APPROPRIATION DASCE SCHEDULE 13. THIS ITEM ONLY APPLICATION A. THIS CHANGE ORDER IS INCOME.	as set for in its tera 14. The hour and dis- diment prior to the hour and date specials occios of the amendment; (b) By a elerence to the solicitation and amendan EPF OF OFFERS PRIOR TO THE HOUL or an offer already, submitted, such changs received prior to the opening hour and of TA (If required) ES TO MODIFICATION OF CONTRACTS	ske specified for receipt of Offers is extended, is not extended, is not extended, and in the solicitation or as amended, by one of the following methods: (a) By completing acknowledging receipt of this emendment on each copy of the offer submitted; or (a) By contributions. Fallure OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT REAND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER, if by get may be made by telegram or letter, provided each telegram or letter makes reformed onto specified. If at Increase: (b) (4) Storders, it modifies the contract/order no. as described in Item 14. Initial Trice Changes set Forth in Item 14 are made in the contract
D. OTHER (Specify type of modification and authority) Class II and II are 2014 1852 232-77 Ligitation of Funds (Samed Frice Contract) (that 1983)	The above numbered sciliotation is amended Offers must acknowledge receipt of this amenitums 8 and 15, and returning deporate letter or tolegram which includes an THE PLACE DESIGNATED FOR THE RECEIVITUE of this amendment you desire to change to the colicitation and this amendment and is 12. ACCOUNTING AND APPROPRIATION DASCO SCHOOLING AND APPLICATION OF THE	as set for in its tera 14. The hour and dis- diment prior to the hour and date specials occios of the amendment; (b) By a elerence to the solicitation and amendan EPF OF OFFERS PRIOR TO THE HOUL or an offer already, submitted, such changs received prior to the opening hour and of TA (If required) ES TO MODIFICATION OF CONTRACTS	ske specified for receipt of Offers is extended, is not extended, is not extended, and in the solicitation or as amended, by one of the following methods: (a) By completing acknowledging receipt of this emendment on each copy of the offer submitted; or (a) By contributions. Fallure OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT REAND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER, if by get may be made by telegram or letter, provided each telegram or letter makes reformed onto specified. If at Increase: (b) (4) Storders, it modifies the contract/order no. as described in Item 14. Initial Trice Changes set Forth in Item 14 are made in the contract
Class II has 1842 232-77 Ligitation of Funds (Sared Frice Contract) (Har 1983)	The above numbered scionation is amended Offers must acknowledge receipt of this amended turns of and 15, and returning deparate letter or tolegram which includes a THE PLACE DESIGNATED FOR THE RECEIVITUDE OF THE SECURIT	as set forin to itera 14. The hour and dis- diment prior to the hour and date operation of the amendment; (b) By a severence to the solicitation, and amendment of OFFERS PRIOR TO THE HOUS or an often stready submitted, such others received prior to the opening hour and of TA (If required). ES TO MODIFICATION OF CONTRACT! SSUED PURSUANT TO: (Specify eurited CONTRACT/ORCER IS MODIFIED TO RITE FORTH IN ITEM 14, PURSUANT TO ITEM TO THE CONTRACT/ORCER IS MODIFIED TO RITE FORTH IN ITEM 14, PURSUANT TO ITEM TO THE CONTRACT/ORCER IS MODIFIED TO RITE FORTH IN ITEM 14, PURSUANT TO ITEM TO THE CONTRACT/ORCER IS MODIFIED TO RITE FORTH IN ITEM 14, PURSUANT TO ITEM TO THE CONTRACT/ORCER IS MODIFIED TO RITE FORTH IN ITEM 14, PURSUANT TO ITEM TO THE CONTRACT/ORCER IS MODIFIED TO RITE FORTH IN ITEM 14, PURSUANT TO ITEM TO THE CONTRACT/ORCER IS MODIFIED TO RITE FORTH IN ITEM 14, PURSUANT TO ITEM TO THE CONTRACT/ORCER IS MODIFIED TO RITE FORTH IN ITEM 14, PURSUANT TO ITEM TO THE CONTRACT/ORCER IS MODIFIED TO RITE FORTH IN ITEM 14, PURSUANT TO THE CONTRACT/ORCER IS MODIFIED TO RITE FORTH IN ITEM 14, PURSUANT TO THE CONTRACT/ORCER IS MODIFIED TO RITE FORTH IN ITEM 14, PURSUANT TO THE CONTRACT/ORCER IS MODIFIED TO RITE FORTH IN ITEM 14, PURSUANT TO THE CONTRACT/ORCER IS MODIFIED TO RITE FORTH IN ITEM 14, PURSUANT TO THE CONTRACT/ORCER IS MODIFIED TO RITE FORTH IN ITEM 14, PURSUANT TO THE CONTRACT/ORCER IS MODIFIED TO RITE FORTH IN ITEM 14, PURSUANT TO THE CONTRACT/ORCER IS MODIFIED TO RITE FORTH IN ITEM 14, PURSUANT TO THE FORTH IN ITEM 14, PURSUANT TO THE FORTH IN ITEM 14, PURSUANT TO THE FORTH IN ITEM 14, PURSUANT TO THE FORTH IN ITEM 14, PURSUANT TO THE FORTH IN ITEM 14, PURSUANT TO THE FORTH IN ITEM 14, PURSUANT TO THE FORTH IN ITEM 14, PURSUANT TO THE FORTH IN ITEM 14, PURSUANT TO THE FORTH IN ITEM 14, PURSUANT TO THE FORTH IN ITEM 14, PURSUANT TO THE FORTH IN ITEM 14, PURSUANT TO THE FORTH IN ITEM 14, PURSUANT TO THE FORTH IN ITEM 14, PURSUANT TO THE FORTH IN ITEM 14, PURSUANT TO THE FORTH IN ITEM 14, PURSUANT TO THE FORTH I	als specified for receipt of Offers is extended. It not extended had in the solicitation or as amended, by one of the following mathods: (a) By completing acknowledging receipt of this emendment on each copy of the offer submitted; or (a) By contributions and acknowledging receipt of this emendment on each copy of the offer submitted; or (a) By contributions are acknowledged. By a shall provide the property of the offer submitted; or (b) By an add by telegram or letter, provided each telegram or letter makes reforence onto specified. If at Increase: Storders, it modifies the contract/order no. as described in item 14. Storders, it modifies the contract/order no. as described in item 14. Storders, it modifies the contract/order no. as described in item 14. Storders, it modifies the contract/order no. as described in item 14. Storders, it modifies the contract/order no. as described in item 14. Storders, it modifies the contract/order no. as described in item 14. Storders, it modifies the contract/order no. as described in item 14. Storders, it modifies the contract/order no. as described in item 14. Storders, it modifies the contract/order no. as described in item 14.
Clause Little to the property of the property	The above numbered sciliotection is amended Offers must acknowledge receipt of this amended turns it and and 15, and returning deparate letter or tolegram which included a THE PLACE DESIGNATED FOR THE RECEIVITUDE of this amendment you desire to change to the educitation and this amendment and is 12. ACCOUNTING AND APPROPRIATION DASSIGNATION DASSIGNATION DASSIGNATION OF SCILIED AND APPROPRIATION DASSIGNATION OF SCILIED AND APPROPRIATION DASSIGNATION OF SCILIED AND APPLICATION	as set forin to itera 14. The hour and distance prior to the hour and date operation of the set of the selections and amendments (b) By a correct to the solicitation and amendment of the forest prior to the opening hour and of the can often street, authorizing the prior to the opening hour and of the forest prior to the opening hour and of the forest prior to the opening hour and of the forest prior to the opening hour and of the forest prior to the opening hour and of the forest prior to the opening hour and of the forest prior to the forest prior to the opening the forest prior to the forest prior	als specified for receipt of Offers is extended, is not extended, is not extended, and in the solicitation or as amended, by one of the following mathods: (a) By completing acknowledging receipt of this amendment on each copy of the offer submitted; or (a) By contributions. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT RAND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER, if by ge may be made by telegram or letter, provided each telegram or letter makes reforence onte specified. If at Increase: (b) (4) STORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14. STORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14. REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, THE AUTHORITY OF FAR 43.103(b).
E. IMPORTANT: Contractor x is rut, is required to sign this document and return 0 copies to the issuing office.	The above numbered scionation is amended Offers must acknowledge receipt of this amended stoms 8 and 15, and returning deparate letter or tolegram which included a THE PLACE DESIGNATED FOR THE RECEIVITUDE OF THE RECEIVITUDE OF THE RECEIVITUDE AND APPROPRIATION DASSIGNATION DASSIGNATION DASSIGNATION DASSIGNATION OF THE COUNTY OF THE STATE OF	as set forin to itera 14. The hour and distance prior to the hour and date operation of the set of the selections and amendments (b) By a correct to the solicitation and amendment of the forest prior to the opening hour and of the can often street, authorizing the prior to the opening hour and of the forest prior to the opening hour and of the forest prior to the opening hour and of the forest prior to the opening hour and of the forest prior to the opening hour and of the forest prior to the opening hour and of the forest prior to the forest prior to the opening the forest prior to the forest prior	als specified for receipt of Offers is extended, is not extended, is not extended, and in the solicitation or as amended, by one of the following mathods: (a) By completing acknowledging receipt of this amendment on each copy of the offer submitted; or (a) By contributions. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT RAND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER, if by ge may be made by telegram or letter, provided each telegram or letter makes reforence onte specified. If at Increase: (b) (4) STORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14. STORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14. REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, THE AUTHORITY OF FAR 43.103(b).

Except as provided herein, all terms and conditions of the doc. 15A. NAME AND TITLE OF SIGNER (Type or print)	A CONTRACTOR OF THE CONTRACTOR	16A. NAME AND TITLE OF CONTRACTING OFFICER (TY	rpu ur print)
		Angosah K. Vaughn	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
		(Signature of Cont. acting Ordogr)	08/22/2013
(Signature of person sufficient to sign)		STAIDA	RD FORM 30 (REV. 10-33)

NGN 7540-01-152-8070 Previous adition unusable STAHDARD FORM 30 (REV. 10-33) Precuribed by GSA FAR (48 CFR) 63.243 The purpose of this modification is to:



 Accordingly, Clause II.A.2, NFS 1852 232-77 Limitation of Funds (Fixed - Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):

Of the total price of CLINs 0001 through 0004, the sum (b) (4)

- (a) is presently available for payment and allotted to this contract.
- (c)(1) It is contemplated that funds presently allotted to this contract will cover work to be performed until
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

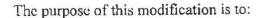
amendment of solicitation///	ODIFICATION OF CONTRACT		1, CONTRACT ID CODE	PA	GE OF PAGES
AMENDMENT/MCDIFICATION NO.	3. EFFECTIVE DATE	4. F	REQUISITION/PURCHASE REQ NO.	5. PROJE	CT NO. (If applicable)
000058	09/04/2013				
I ISSUED BY	CODE JSC	7.	ADMINISTERED BY (If cine-then flam 6)	CODE	
NASA/Johnson Space Cent Attn: BG / Samuel McIlv 2101 NASA Parkway Houston TX 77058-3696	er				
NAME AND ADURESS OF CONTRACTOR	(No., street, county, State and ZIP Code)	(x)	PA. AMENDMENT OF SOLICITATION NO.	1.0	
PACEX ROCKET RD NATHORNE CA 90250			98. DATED (SEE ITEM 11)	_	
		×	10A MODIFICATION OF CONTRACT/CALD NNJ 0 5 GA 0 4 B	R NO.	
		1	108. DATEO (SEE ITEM 13)		
CODE 3DVL8	FACILITY CODE		12/23/2004		
	TT. THE WEST DOLY AREA	E TO ALL	NOTALIN'S OF COLICITATIONS	-	
	LIES TO MCDIFICATION OF CONTILACTS	ORDERA, 1	ectesse: Twodines the contractionder: 10. A	(1)) (4)
13. THIS THEN ONLY APPLICATION ONLY APPLICATION ON THE CHANGE ORDER IS ORDER NO. IN ITEM: 10A.	ISSUED PURSUANT TO: (Specify Bullion	ly) THE CH			
13. THIS THEN ONLY APPL CHECK UND A. THIS CHANGE ORDER IS ORDER NO. IN ITEM 18A. B. THE ABOVE NUMBERED appropriation date, stc.) SI	ISSUED PURSUANT TO: (Specify Bullion	IN) THE CH	T NODIFIES THE CONTRACTIONDER NO. A ANGES SET FURTH IN ITEM 14 ARE MADE E ADMINISTRATIVE CHANGES (such as che RITY OF FAR 43.103(b).		
13, THIS THEN ONLY APPLICATION OF THE CHURCH UNITED A. THIS CHANGE ORDER IS ORDER NO. IN ITEM 18A. B. THE ABOVE NUMBERED appropriation data, stc.) SI C. THIS GUFFLEMENTAL ACT	ISSUED PURSUANT TO: (Specification of the contract to the pursuant to the feather is entitled in to pursuant to the contract is entitled in to pursuant to the contract in the pursuant to the contract in the pursuant to the contract in the pursuant to the contract in the pursuant to the contract in the pursuant to the contract in the pursuant to the contract in the pursuant to the contract in the pursuant to the	EFLECT THE THE ALT HOP INT TO AUTO	T MODIFIES THE CONTRACTION DER NO. A ANGES SET FORTH IN ITEM 14 ARE MADE ADMINISTRATIVE CHANGES (such as che RITY OF FAR 43.103(b).	nges in peying	
A. THIS CHANGE ORDER IS ORDER NO. IN TENT IDA. 8. THE ABOVE NUMBERED appropriation date, stc.) SI C. THIS GUFFLEMENTAL ACT	CONTRACT/UNDER IS MODIFIED TO NET FORTH HITTER 14, PLRSUANT TO TO SEEMENT IS ENTITIZE IN TO PURE JA commonly and authority) FS 1852-232-77, Limitation	eflect the ME AUTHOR	TWODINES THE CONTRACTION DET. 10. A ANGES SET FURTH IN ITEM 14 ARE MADE EADMINISTRATIVE CHANGES (such as chooser) TOT FAR 43.103(b). TORITY CF: S [Fixed-Price Contract] (Mo	nges <i>in peying</i> r 1989)	
13, THIS THEN ONLY APPL CHICK UND A. THIS CHANGE ORDER IS ORDER NO. IN ITEM 10A. B. THE ABOVE NUMBERED appropriation date, stc.) SI C. THIS GUFFLEMENTAL AC D. OTHER (Specify type of fire X Clause II. A.2., Ni	CONTRACT/UNDER IS MODIFIED TO HEF FORTH HITTEM 14, PLASUANT TO TO SHEEMENT IS ENTITIED TO PURE JA oditioalion and authority) FS 1852-232-77, Limitation Jis not. (2) is required to sign this doc.	effect the HE AUTHOR NY TO AUTHOR of Functional relationships	TWODINES THE CONTRACTIONDER TO A ANGES SET FORTH IN ITEM 14 ARE MADE EADMINISTRATIVE CHANGES (such as choosing to the far 49.103(b). SORITY OF FAR 49.103(b). SET IN THE CONTRACT IN THE FAR 49.103(b).	r 1989)	
13, THIS THEN ONLY APPL CHECK UND A. THIS CHANGE ORDER IS ORDER NO. IN ITEM 10A. 8. THE ABOVE NUMBERED appropriation date, stc.) SI C. THIS GUI-FLEMENTAL ACT OF THE CHANGE IT. A. 2., NO. OTHER (Specify type of the Change IT. A. 2., NO. OTHER (Specify type of the Change IT. A. 2., NO. OTHER (Specify type of the Change IT. A. 2., NO. OTHER (Specify type of the Change IT. A. 2., NO. OTHER (Specify type of the Change IT. A. 2., NO. OTHER (Specify type of the Change IT. A. 2.)	CONTRACT/UNDER IS MODIFIED TO HEF FORTH HIS TEM 14, PLASUANT TO TO SHEEMENT IS ENTITIED TO PURE JA oditionibn and authority) FS 1852-232-77, Limitation Is not. (I) a required to sign this document.	effect the HE AUTHOR NY TO AUTHOR of Functional relationships	TWODINES THE CONTRACTIONDER TO A ANGES SET FORTH IN ITEM 14 ARE MADE EADMINISTRATIVE CHANGES (such as choosing to the far 49.103(b). SORITY OF FAR 49.103(b). SET IN THE CONTRACT IN THE FAR 49.103(b).	r 1989)	
13, THIS THEN ONLY APPL CHICK UND A, THIS CHANGE ORDER IS ORDER NO. IN ITEM: 10A. 8. THE ABOVE NUMBERED appropriation date, stc.) SI C. THIS GUI-FLEMENTAL AC D. OTHER (Specify types of rest	CONTRACT/UKDER IS MODIFIED TO REFECT HIS INTERNAL PLASUANT TO TAKE EMELT IS ENTITIED IN 10 PURE JA coditional on a cut unity) FS 1852-232-77, Limitation The not. (It is required to sign this doc.) FIGATION (On anized by UCF section here.)	EFLECT THE CHE AUTHOR AUTHOR OF Fundament and relatings, Includ	ANGES SET FORTH IN ITEM 14 ARE MADE ADMINISTRATIVE CHANGES (such as che THY OF FAR 43.103(b). S [Fixed-Price Contract] (Mo- THY OF FAR 43.103(b). In copies to the in The copi	r 1989) suing office. (casicfu.)	office,
CHECK UNL A. THIS THEN ONLY APPL ORDER NO. IN ITEM: 10A. B. THE ABOVE NUMBERED appropriation date, stc.) SI C. THIS GUFFLEMENTAL AC D. OTHER (Specify type of the Chause II . A.2., Ni E. IMPORTANT: Contracts. 14. DESCRIPTION OF AMENDMENT/MODIF See continuation page	CONTRACT/UKDER IS MODIFIED TO REFECT HIS INTERNAL PLASUANT TO TAKE EMELT IS ENTITIED IN 10 PURE JA coditional on a cut unity) FS 1852-232-77, Limitation The not. (It is required to sign this doc.) FIGATION (On anized by UCF section here.)	effect the AUTHOR AUTHO	ANGES SET FORTH IN ITEM 14 ARE MADE ANGES SET FORTH IN ITEM 14 ARE MADE ADMINISTRATIVE CHANGES (such as chere RITY OF FAR 49.103(b). SETTING FAR 49.103(b). SETTING FAR 49.103(c). SETING FAR 49.103(c).	r 1989) suing office. (casicfu.)	office,

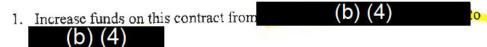
NSN 7514 01-152-5070 Previous dition prosable

STANDARD FORM 3D (REV. 10-83) Preuditied by GSA FAR (48 CFR) 53,243 The purpose of this medification is to:

- 1. Reduce funds on this contract from (b) (4)
 - Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (b) subparagraph (1):
 - Of the soul price of CLINs 0001 through 0004, the sum of (b) (4)
 - (a) is presently available for payment and allotted to this contract.
 - (c)(1) It is contemplated that finds presently allotted to this contract will cover work to be performed until (b) (4)
 - 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and offeet.

AMENDMENT OF SOLICITATION/MO	DIFICATION OF CONTRACT	1. CONTRACT ID CUDE	PAGE OF PAGES
2, AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
000059	09/17/2013	1200401652	1
F ISSUED BY	CODE JSC	7. ADMINISTED BY (If other at a litem 6)	CODE
NASA/Johnson Space Conte Attn: BG / Semuol McIlve 2101 NASA Parkway Houston TN 77058-3196			
8 NAME AND ADDRESS OF COUTRACTOR	W., Creek, county, Siate and ZIP Co.s.)	(x) 9A, AMENDMENT OF SOLICITATION NO).
JPACEX			
L ROCKET RD		9B. DATED (SEE ITEM 11)	
AWIHORNE CA 90250			
		13A. MODIFICATION OF CONTRACTION	RDER NO.
		CONTRACTOR OF THE MAN	
CODE SESTE	FACILITY CODE	108. DATED (SOC ITEM 14)	
CODE SEVILE		IES TO AMENDMENTS OF SOLICITATIONS	
Items 8 and 15, and returning separate latter or talegram which includes a THE PLACE DESIGNATED FOR THE RECE virtue of this arrandoment you desire to change	copies of the amendment; (b) By as alterance to the sulicitation and amendment IPT OF OFFERS PRIOR TO THE HOUS e an orier already submitted, such chang	ed in the soficitution or as amended, by one of the follow Uncowiedging records of this amendment on each way o ent numbers. FALURE OF YOUR ACKNOWLEDGEME RAND DATE SPECIFIED MAY RESULT IN REJECTION or may be made by tologram or letter, provided each tole	f the offer submitted; or (c) By NT TO BE RECEIVED AT UCF YOUR OFFER. If by
to the solicitation and this arriendment, and is 12. ACCOUNTING AND APPROPRIATION DATE	received prior to the opening hour and d	Nat. Increase:	(b) (4)
sea Schedule	TO TO HEDIFICATION OF CONTRACTO	NORDERS, IT MODIFIES THE CONTRACT/ORDER NO.	
13. THIS ITEM ONLY APPLIE	ES TO MODIFICATION OF CONTRACTS	NORDERS, II MODIFIES THE CONSTRUCTION DEN NO.	AG DEGORIDED HTTER 141
CHECK ONE A. THIS CHANGE OF DER IS IN ORDER NO. IN ITEM 10A.	SQUED PURSUANT TO: (Specify author)	dy) THE CHARGES SET FORTH IN ITEM 14 ARE MAI	DE IN THE CONTRACT
		EFLEUT THE ADMINISTRATIVE CHANGES (such as a THE AUTHORITY OF FAR 43.103(b).	hangus in paying riflee,
C. THIS SUPPLEMENTAL AGR	REEMENT IS STITERED INTO PURSUA	INT TO AUTHORITY OF.	
D. OTHER (Speally type of mod	finaction and authomy)		
X Clause II. A.Z., #F*	1252-232-77, Limit vilon	el lund: (Fired-true- Contract) (KA (9)()
E, IMPORTANT: Contractor 5.	s not. is required to sign this door	ment and rutium copies to the	a lequing office.
14, DESCRIPTION OF AMENDMENT/MODIFIC	ATION (Organized by UCF section her	tings, including soficitation contract subject matter when	e (casine.)
see continuation page			
		80 - WKSD TUK - MARKET DE - 176 TENNINGS - 278 YES	
		9A or 10A, as heretofner changed, a mains unchanged at 16A, NAME AND TITLE OF CONTRACTION	G OFFICER (Type or print)
1::A, NAME AND TITLE OF SIGNER (Type of p	anaj	Kirby Sondfor &	
450 AND MASTORIO (1707)	I SEC DATE OF		160, DATE SIGNED
15E, CONTRACTOR/OFFEROR	16C. DATE SK	GINED THE STATE OF ASSETS	
(Sign, ture of percini sub-vived to a gr	a	(Signature of Cuntra the Office	09/17/2013
NSN 7540-01-152-807U	,		STANDARD FORU 30 (REV. 10-93)
Previous edition unusable			Prescribod by GSA FAR (48 CFR) 53,243





 Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed - Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):

Of the total price of CLINs 0001 through 0004, the sum of (b) (4)

- (a) is presently available for payment and allotted to this contract.
- (c)(1) It is contemplated that funds presently allotted to this contract will cover work to be performed until (b) (4)
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

					1. CONTRACT ID COD	E	100	AGE OF	PAGES
AMENDMENT OF SOLICIT	ATION/MODIFIC	ATTON OF CO	NTRACT		82 93			1	2
. AMENDMENT/MODIFICATION	NO.	3. EFFECTIVE D	ATE	1	UISITIO: VPURCHASE R	EQ. NO.	5. PRC.	JECT NO.	(if applicable)
000060		10/24/20:	13		493483			,	
B. ISSUED BY	CODE	JSC		7. AD	MINISTERED BY (If other	than liem 5)	CODE		
NASA/Johnson Spac Attn: BG / Samuel 2101 NASA Parkway Houston TX 77058-	McIlvoy								
B. NAME AND ADDRESS OF CON	ITRACTOR (No., street	county, State and Zi	P Code)	(x) ^{9A}	. AMENDMENT OF SQLI	CITATION NO.			
SPACEX ROCKET RD NAWTHORNE CA 90250	1			98	DATED (SEE ITEM 11)				
man envenuel our Adequ	7.				A. MODIFICATION OF CONJO 9GA 04B		R NO.		
					V. S.				
CCDE 3DVI 9		FACILITY CODE		~ i	7/23/2004	4			
CCDE 3BVL8 The above numbered solicitation	n is amended as act k	11, THIS ITEM	ONLY APPLIES TO	AMEND	2/23/2006 VENTS OF SOLICITATION receipt of Offers	VS	xtended.		
The above numbered solicitation Offers must acknowledge rectifitiens 6 and 15, and returning separate letter or telegram which THE PLACE DESIGNATED FOR virtue of this amendment you de reference to the solicitation and 12.	ot of this amendment is not includes a reference R THE RECEIPT OF earlier to change an offe this amendment, and RIATION DATA (If req ONLY APPLIES TO M	11. THIS ITEM 11. THIS ITEM onth in Item 14. The onth in them 14. The onth in them 14. The pies of the amenda to the solicitation on FERS PRIOR To already submitted is received prior to uirod) IODIFICATION OF	A GNLY APPLIES TO the hour and date spect d date specified in the ment; (b) By acknowle and amendment num O THE HOUR AND C d, auch change may the opening hour an Ne CONTRACTS/ORDE	AMENCI cified for e gollicital edging re- nbers. F DATE 8P be made at date 8 t I no RS. 11 N	MENTS OF SOLICITATION receipt of Offers Ion or as amended , by or ceipt of this amendment of AILURE OF YOUR ACKN ECIPIED MAY RESULT IN by selepram or latter, pro- secified. CAUGE SE: [ODIFIES THE CONTRACT	NS Is entered the following on each sopy of the OWN_EDGEMENT IN REJECTION OF wided each telegration of the Company of the Com	methods: (8 e offer submit TO BE REC YOUR OFFirm or letter in DESCRIBE	D IN TEM	eding) By
The above numbered solicitation Offers must acknowledge recoin items 6 and 15, and returning separate letter or telegram whice THE PLACE DESIGNATED FOR virtue of this amendment you de reference to the solicitation and 12. ACCOUNTING AND APPROPE See Schedule 13. THIS ITEM CHECK ONE A. THIS CHANGE ORDER NO. IN	ot of this amendment is not on the receipt of the RECEIPT OF the receipt of the same of th	11, THIS ITEM 11, THIS ITEM After the hour to the hour to the hour to the hour to the received prior to the	A GNLY APPLIES TO the hour and date specified in the ment; (b) By acknowle and amendment num O THE HOUR AND C d, such change may the opening hour an Ne CONTRACTS/ORDE	AMENDI citied for e solicital edging re abers. F OATE 8P be made at date 8r t I no RS. IT N	MENTS OF SOLICITATION receipt of Offers alon or as amended, by or ceipt of this amendment of AILLURE OF YOUR ACKN ECIFIED MAY RESULT IN by selegram or lotter, pro- secified. CINCA SE: IODIFIES THE CONTRAC GES SET FORTH IN ITEL	is e ne of the following on each copy of the OWN_EDGEMENT I REJECTION OF wided each telegration of the Company	methods: (8 e offer submitto BE REC YOUR OFFirm or letter in DESCRIBE	i) Liy complited; or (c CELVED AT ER If by hakes) (4 D IN ITEM	eding) By
The above numbered solicitation Offers must acknowledge record items 6 and 15, and returning separate letter or telegram which THE PLACE DESIGNATED FOR virtue of this amendment you de reference to the solicitation and 12. ACCOUNTING AND APPROP See Schedule 13. THIS ITEM CHECK ONE A. THIS CHANGE ORDER NO. IN B. THE ABOVE NI appropriation of	ot of this amendment is not on the includes a reference in the receipt of the receipt of the same of the same of the same of the same of the receipt of the same of the receipt of the same of the receipt of the same of the receipt o	11. THIS ITEM 14. THIS ITEM 15. THE MAN THE MA	A GNLY APPLIES TO the hour and date specified in the ment; (b) By acknowle and amendment num O THE HOUR AND C d, such change may the opening hour an Ne CONTRACTS/ORDE	AMENDICATION AMEND	MENTS OF EQUICITATION receipt of Offers ition or as amended, by or ceipt of this amendment of AILLINE OF YOUR ACKN ECIFIED MAY RESULT IN by being an or latter, pro- pecified. COMBRISS THE CONTRAC GES SET FORTH IN ITEM DMINISTRATIVE CHANG Y OF FAR 45, 103(b).	is e ne of the following on each copy of the OWN_EDGEMENT I REJECTION OF wided each telegration of the Company	methods: (8 e offer submitto BE REC YOUR OFFirm or letter in DESCRIBE	i) Liy complited; or (c CELVED AT ER If by hakes) (4 D IN ITEM	eding) By
The above numbered solicitation Offers must acknowledge record items 6 and 15, and returning separate letter or telegram which THE PLACE DESIGNATED FOR virtue of this amendment you de reference to the solicitation and 12. ACCOUNTING AND APPROP See Schedule 13. THIS ITEM CHECK ONE A. THIS CHANGE ORDER NO. IN B. THE ABOVE NI appropriation of	ot of this amendment is not on the receipt of the RECEIPT OF the receipt of the same of th	11. THIS ITEM 14. THIS ITEM 15. THE MAN THE MA	A GNLY APPLIES TO the hour and date specified in the ment; (b) By acknowle and amendment num O THE HOUR AND C d, such change may the opening hour an Ne CONTRACTS/ORDE	AMENDICATION AMEND	MENTS OF EQUICITATION receipt of Offers ition or as amended, by or ceipt of this amendment of AILLINE OF YOUR ACKN ECIFIED MAY RESULT IN by being an or latter, pro- pecified. COMBRISS THE CONTRAC GES SET FORTH IN ITEM DMINISTRATIVE CHANG Y OF FAR 45, 103(b).	is e ne of the following on each copy of the OWN_EDGEMENT I REJECTION OF wided each telegration of the Company	methods: (8 e offer submitto BE REC YOUR OFFirm or letter in DESCRIBE	i) Liy complited; or (c CELVED AT ER If by hakes) (4 D IN ITEM	eding) By
The above numbered solicitation Offers must acknowledge rectifitiens 6 and 15, and returning separate letter or telegram which THE PLACE DESIGNATED FOR virtue of this amendment you de reference to the solicitation and 12. ACCOUNTING AND APPROP See Schedule 13. THIS ITEM CHECK ONE A. THIS CHANGE ORDER NO. IN B. THE ABOVE NI appropriation of C. THIS SUPPLET	ot of this amendment is not in includes a reference in the RECEIPT OF the receipt to the size to other go an official in the smendment, and RIATION DATA (If required to the receipt to th	11. THIS ITEM 14. THIS ITEM 15. ITEM 16. ITEM 16. ITEM 16. ITEM 16. ITEM 17	A GNLY APPLIES TO A GNLY APPLIES TO d date specified in the ment; (b) By acknowle and amendment num O THE HOUR AND O, the copening hour an Ne CONTRACTS/ORDE	AMENDO AMENDO AMENDO E solicitat edging re abers. FO ATE 8P be made to tate 6s to I no E CHAN TITHE AS TITHE AS TITHE AS TITHORIT AUTHORI	MENTS OF EQUICITATION receipt of Offers ition or as amended, by or ceipt of this amendment of AILLINE OF YOUR ACKN ECIFIED MAY RESULT IN by being an or latter, pro- pecified. CITIES THE CONTRAC GES SET FORTH IN ITEM DMINISTRATIVE CHANG YOF FAR 45, 103(b).	is ene of the following on each copy of the OWLEDGEMENT IN REJECTION OF wided each telegration of the Company o	methods: (a e offer submit 70 BE REC YOUR OFF m or latter in DESCRIBE N THE CON	i) Liy complited; or (c CELVED AT ER If by hakes) (4 D IN ITEM	eding) By
The above numbered solicitation Offers must acknowledge rectifitiens 6 and 15, and returning separate letter or telegram which THE PLACE DESIGNATED FOR virtue of this amendment you de reference to the solicitation and 12. ACCOUNTING AND APPROP See Schedule 13. THIS ITEM CHECK ONE A. THIS CHANGE ORDER NO. IN B. THE ABOVE NI appropriation of C. THIS SUPPLET	ot of this amendment is not in includes a reference in the RECEIPT OF the receipt to the size to other go an official in the smendment, and RIATION DATA (If required to the receipt to th	11. THIS ITEM 14. THIS ITEM 15. ITEM 16. ITEM 16. ITEM 16. ITEM 16. ITEM 17	A GNLY APPLIES TO A GNLY APPLIES TO d date specified in the ment; (b) By acknowle and amendment num O THE HOUR AND O, the copening hour an Ne CONTRACTS/ORDE	AMENDO AMENDO AMENDO E solicitat edging re abers. FO ATE 8P be made to tate 6s to I ro E CHAN TITHE AS TITHE AS TITHE AS TITHORIT AUTHORIT AUTH	MENTS OF EQUICITATION receipt of Offers ition or as amended, by or ceipt of this amendment of AILLINE OF YOUR ACKN ECIFIED MAY RESULT IN by being an or latter, pro- pecified. COMBRISS THE CONTRAC GES SET FORTH IN ITEM DMINISTRATIVE CHANG Y OF FAR 45, 103(b).	is ene of the following on each copy of the OWLEDGEMENT IN REJECTION OF wided each telegration of the Company o	methods: (# e offer submit to Be REC you've for a latter in a latter in the control of the contr	i) Liy complited; or (c) CELVED AT ERR II by harkes) (4) D IN ITEM STRACT g office,	eding) By

15A. NAME AND TITLE OF SIGNER (Type or print)		10A, as heretolore changed, remains unchanged and in full force and effect. 16A, NAME AND TITLE OF CONTRACTING OFFICER (Type or print)		
		Aneesah K. Yaughn		
16B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	168 UNITED STATES OF AMERICA	18C. DATE SIGNED	
BB. BBR TOWN TO THE TOWN		Mes chi (Signature of Contratong Official)	10/24/2013	
(Signature of person authorized to sign)		(Signature of Contracting Official)	APP ECEN SO (REV 10-83)	
NSN 7540-01-152-8070		31210	ARD FORM 30 (REV. 10-63) bed by GSA	

Previous edition unusable

FAR (48 CFR) 53.243

The purpose of this modification is to:

- 1. Increase funds on this contract from (b) (4)
- Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):

Of the total price of CLINs 0001 through 0004, the sum of (b) (4)

- (a) is presently available for payment and allotted to this contract.
- (c)(1) It is contemplated that funds presently allotted to this contract will cover work to be performed until (b) (4)
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.

	CONTRACT		1. CONTRACT ID CODE		PAGE U	F PAGES
AMENDMENT OF SOLICITATION/MODIF	CATION OF CONTRACT				1	2
AMENDMENT MODIFICATION NO	3. EFFECTIVE DATE		UISITION PURCHASE REG. NO.	E PRO	Y ECT NO). (If applicable)
000061	11/10/2013	1	490908	CODE		
ISSUED BY CO	DE JSC	7. AD%	MINISTERED BY (If other than Item 5)	CODE	L	
AKSA Johnson Space Center Attn: BG / Samuel Hollwoy 2101 MASA Parkway Houston EK 77058-3696						
S. NAME AND ADDRESS OF CONTRACTOR (No.)	arest, county, Elejo and Elf-Corle)	(x) 9A	AMENDMENT OF SOLICITATION NO			
PACEN . ROCKET RD MANTHORNE CL 90250			DATED (SEE ITEM 11)	_		
		1. 194	MODIFICATION OF CONTRACTION OF JOSEPH 13) B. DATED (SEE ITEM 13)	DFR NO.		
code 38AF8	VACILITY CODE		2/23/2008			
The above numbered solicitation is amended as	11, THIS ITEM ONLY APPLIE set forth in Item 14. The hour and dete	e specimed from	encipt of Offers	is extended.	(a) By cor	extended.
The above numbered soliutation is amended act of the sustandary windge receipt of this unendmittens it and 10, and 10/ming apparate letter or tolegram which includes a reference to the solidation and this amendment you desire to change at reference to the solidation and this attendment. 12. ACCOUNTING AND APPROPRIATION DATA (100.00.00.00.00.00.00.00.00.00.00.00.00.	11. THIS ITEM ONLY APPLIE set forth in Item 14. The hour and date copies of the amendment, (b) By ack rence to the solicitation and amendment of OFFERS PRIOR TO THE HOUR A n offer already submitted, such change and is recoved prior to the opening by (if required)	e specified for it in the soliditet knowledging re- ri numbers. Francischer Schalb DATS SPIs may be made our and date since the first spis spis spis spis spis spis spis sp	excipt of Offers out or as americand, by one of the folious or as americand, by one of the folious cipl of this american each copy: ALLURE OF YOUR ACKNOWLEDGEM ESTIFICED MAY RESULT to REJECTION by talegram or letter, provided each taleaffied. OCIPE 1983:	wing methods: of the offer sub- ENT TO BE IND OF YOUR OF egram or letter	(a) By conmitted; or CEIVED FER If It makes	npieting - (c) By AT y
The above numbered soliutation is amended act Offices trust acknowledge receipt of this umendmittens it and 10, and refurning apparate letter or tolegram which includes a refer THE PLACE DESIGNATED FOR THE RECEIPT virtue of this amendment you desire to change at reference to the solidation and this attendment, 2. ACCOUNTING AND APPROPRIATION DATA (10.000 CONTROLLED APPROPRIATION DATA)	11. THIS ITEM ONLY APPLIE set forth in Item 14. The hour and date sent prior to the hour and date specified copies of the amendment, (b) By act rence to the solicitation and amendment of OP FERS PRIOR TO THE HOUR A n ofter arrestly submitted, such change and is exceived prior to the opening to	e specified for it in the soliditet knowledging re- ri numbers. Francischer Schalb DATS SPIs may be made our and date since the first spis spis spis spis spis spis spis sp	excipt of Offers out or as americand, by one of the folious or as americand, by one of the folious cipl of this american each copy: ALLURE OF YOUR ACKNOWLEDGEM ESTIFICED MAY RESULT to REJECTION by talegram or letter, provided each taleaffied. OCIPE 1983:	wing methods: of the offer sub- ENT TO BE IND OF YOUR OF egram or letter	(a) By conmitted; or CEIVED FER If It makes	npieting - (c) By AT y
The above numbered solicitation is amended as Colors must acknowledge receipt of this umending separate latter or tolegram which includes a refer THE PLACE DESIGNATED FOR THE RECEIPT vitue of this amendment you desire to change as reference to the postilation and this at sindhood, 12. ACCOUNTING AND APPROPRIATION DATA (13. ACCOUNTING AND APPROPRIATION DATA (13. THIS ITEM ONLY APPLIES CHECK ONE 14. THIS CHANGE ORDER IS ISSUED FOR THE AND THE MORE THAT ON THE MORE THAT ONLY APPLIES ORDER NO. IN ITEM 10A.	11. THIS ITEM ONLY APPLIE set forth in item 14. The hour and date copies of the amendment, (b) By ack rence to the sourcistion and amendment of OF FERS PRIOR TO THE HOUR A n offer already submitted, such change and is encoured prior to the opening by if required) TO MODIFICATION OF CONTRACTSIO USD PURSUANT TO: (Specify authority)	o specified from the schlaist knowledging re-	excipt of Offers Out or as americaed, by one of the folious copy of this alter dimention each copy of the Copy of	wing methods: of the offer sub- ENT TO BE RE OF YOUR OF egram of letter AS DESCRIB	(A) By conmitted; or celled; or celled in makes (A) (A) (A) (A) (A) (A) (A) (A) (A) (A)	ne strig (c) By AT y (4)
The above numbered solicitation is amended as Colors must acknowledge receipt of this unrendmigness and 15, and returning apparate letter or telegram which includes a refer THE PLACE DESIGNATED FOR THE RECEIPT VIEW of this amendment you desire to charge at reference to the solicitation and this amendment (a ACCONTING AND APPROPRIATION DATA (I See Schiedul 1) 13. THIS ITEM ONLY APPLIES CHECTONE A THIS CHANGE ORDER IS ISSUED ORDER NO. IN ITEM 10A. 8. THE ABOVE NUMBERED CON appropriation dets. etc. J Set 1	11. THIS ITEM ONLY APPLIE set forth in Item 14. The hour and date bent prior to the hour and date specified copies of the mendeduct, (b) By ack rence to the solicitation and amendment of the PERS PRIOR TO THE HOUR A n offer already submitted, such change and is acceived prior to the opening to the quality) TO MODIFICATION OF CONTRACTSIO USD PURSUANT TO: (Specify authority TRACT/ORDER IS MODIFIED TO REF ORTH IN ITEM 14, PURSUANT TO THE	o specified from the schlick knowledging re- k	eccipt of Offers Ich or as americand, by one of the folioperal of this americand, by one of the folioperal of this american acts one as popy will the OF YOUR ACKNOWLEDGEM BOTHED MAY RESULT TO REJECTION by telegram or letter, provided each tele	wing methods: of the offer sub- ENT TO BE RE OF YOUR OF egram of letter AS DESCRIB	(A) By conmitted; or celled; or celled in makes (A) (A) (A) (A) (A) (A) (A) (A) (A) (A)	ne strig (c) By AT y (4)
The above numbered soliutation is amended act of this sust acknowledge receipt of this smeridm separate latter or tolegram which includes a reference to the solicitation and this amendment you desire to change at reference to the solicitation and this at sindhood. It is amendment you desire to change at reference to the solicitation and this at sindhood. It is amendment you desire to change at sindhood. It is amendment you desire to change as a solicitation and this at sindhood. It is a solicitation and this is a solicitation of the solicit	11. THIS ITEM ONLY APPLIE set forth in item 14. The hour and date both prior to the hour and date specified copies of the amendment, (b) By ack mode to the solicitation and amendment of OF FERS PRIOR TO THE HOUR A n offer already submitted, such change and is experied prior to the opening to if required) TO MODIFICATION OF CONTRACTSIC USED PURSUANT TO: (Specify authority ITRACT/ORDER IS MODIFIED TO REF ORTH IN ITEM 14, PURSUANT TO THE	o specified from the schlick knowledging re- k	eccipt of Offers Ich or as americand, by one of the folioperal of this americand, by one of the folioperal of this american acts one as popy will the OF YOUR ACKNOWLEDGEM BOTHED MAY RESULT TO REJECTION by telegram or letter, provided each tele	wing methods: of the offer sub- ENT TO BE RE OF YOUR OF egram of letter AS DESCRIB	(A) By conmitted; or celled; or celled in makes D) The makes D) The makes	ne strig (c) By AT y (4)
The above numbered solicitation is amended as Colors must acknowledge receipt of this unrendming apparate letter or tolegram which includes a reference to the solicitation and this amendment you desire to charge as reference to the solicitation and this amendment as ACCCINTING AND APPRIPRIATION DATA (IDDEED ONE 13. THIS THEM ONLY APPLIES CHECK ONE A THIS CHANGE ORDER IS ISSUED ORDER NO. IN TERM TOA. 8. THE ABOVE NUMBERED ON Appropriation detailed. Set 1.	11. THIS ITEM ONLY APPLIE set forth in Item 14. The hour and date tent prior to the hour and date specified copies of the mendmont, (b) By ack rence to the solicitation and amendment OF OFFERS PRIOR TO THE HOUR A n offer aircedy submitted, such change and is acceived prior to the opening by If required) TO MODIFICATION OF CONTRACTSIC USED PURSUANT TO: (Specify authority) TITRACT/ORDER IS MODIFIED TO REF ORTH IN ITEM 14, PURSUANT TO THE	o specified from the schlick knowledging re- k	excipt of Offers In or as americand, by one of the folioper of this americand, by one of the folioper of this american each copy. ALLURE OF YOUR ACKNOWLEDGEM EDIFIED MAY RESULT TO REJECTION by telegram or letter, provided each telegram or let	wing methods: of the offer sub- ENT TO BE 7:6 OF YOUR OF egram or lettle: AS DESCRIB- DE IN THE CO thanges in pay	(A) By conmitted; or certification of the certifica	ne strig (c) By AT y (4)
The above numbered solicitation is amended as Colors must acknowledge receipt of this unrendming apparate letter or tolegram which includes a reference to the solicitation and this amendment you desire to charge as reference to the solicitation and this amendment as ACCCINTING AND APPRIPRIATION DATA (IDDEED ONE 13. THIS THEM ONLY APPLIES CHECK ONE A THIS CHANGE ORDER IS ISSUED ORDER NO. IN TERM TOA. 8. THE ABOVE NUMBERED ON Appropriation detailed. Set 1.	11. THIS ITEM ONLY APPLIE set forth in item 14. The hour and date bent prior to the hour and date specified copies of the amendment, (b) By ack rence to the solicitation and amendment OF OF FERS PRIOR TO THE HOUR A n offer aircedy submitted, such change and is acceived prior to the opening by If required) TO MODIFICATION OF CONTRACTSIC UED PURSUART TO: (Specify authority) ITRACT/ORDER IS MODIFIED TO REF ORTH IN ITEM 14, PURSUART TO THE MENT IS ENTERED INTO PURSUARY Jebon and authority)	e specified from the schlick knowledging re- k	excipt of Offers ICL or as americand, by one of the force ceipt of this a residence on each copy. ALLURE OF YOUR ACKNOWLEDGEM BY RESULT TO REJECTION by telegram or letter, provided each to actified. CYPPERS THE CONTRACT/ORDER NO GES SE 1 FORTH IN ITEM 14 ARE THA CALLY OF FAR 40 103(b). ICLY OF	wing methods: of the offer sub- ENT TO BE 7:6 OF YOUR OF egram or lettle: AS DESCRIB- DE IN THE CO thanges in pay	(A) By conmitted, or CERVED INTER IT IT makes O) IT makes O) IT TO IT	ne strig (c) By AT y (4)

Except as provided herein, all terms and conditions of the document referenced in item 9 A or 1CA, as horefolious changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)

15B. CONTRACTOR/OFFEROR

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

15C. DATE SIGNED

NSN 7540-01-152-6070 Provious addio: unusació Prescribed by GSA FAR (48 GFR) 53.243

	FICATION OF CONTRACT		PAGE OF PAGES
AMENDMENT/MODIFICATION NO	3 EFFECTIVE DATE	4 REQUISITION/PURCHASE REQ NO	5 PROJECT NO (If eppkcable)
000062	01/16/2014		
ISSUED BY CO	DDE JSC	7 ADMINISTERED BY (If other than tiem 5)	CODE
NASA/Johnson Space Center Attn: BG / Samuel McIlvoy 2101 NASA Parkway Houston TX 77058-3696			
8 NAME AND ADDRESS OF CONTRACTOR (No.	stree: county State and ZIP Code)	(x) 9A AMENDMENT OF SOLICITATION NO	
SPACEX			
ROCKET RD		9B DATED (SEE ITEM 11)	
HAWTHORNE CA 90250			
		X NNJO9GA04B	INO
		10B DATED (SEE ITEM 13)	
CODE 3BVL8	FACILITY CODE	12/23/2006	
	11. THIS ITEM ONLY APPLIES	TO AMENDMENTS OF SOLICITATIONS	stended is not extended
THE PLACE DESIGNATED FOR THE RECEIPT	rence to the solicitation and amendment OF OFFERS PRIOR TO THE HOUR At in offer already submitted, such change it and is received prior to the opening hou	nowledging receipt of this amendment on each copy of the numbers FA LURE OF YOUR ACKNOWLEDGEMENT: NO DATE SPECIFIED MAY RESULT IN REJECTION OF may be made by telegram or letter, provided each telegram or and date specified.	TO BE RECEIVED AT YOUR OFFER If by
	TO MODIFICATION OF CONTRACTS/O	RDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS	DESCRIBED IN ITEM 14.
CHECK ONE A THIS CHANGE ORDER IS ISSU	UED PURSUANT TO (Specify authority)	THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN	THE CONTRACT
B THE ABOVE NUMBERED CON appropriation date etc.) BET F	ITRACT/ORDER IS MODIFIED TO REFI ORTH IN ITEM 14 PURSUANT TO THE	LECT THE ADMINISTRATIVE CHANGES (such as change AUTHORITY OF FAR 43 103(b)	es in paying office
C THIS SUPPLEMENTAL AGREE	MENT IS ENTERED INTO PURSUANT	TO AUTHORITY OF	
D OTHER (Specify type of modulo	cation and authority;		
X Mutual Agreement	Between Both Parties		
E. IMPORTANT: Contractor is n	not X is required to sign this docum	ent and return1 copies to the iss	ung off ce
14 DESCRIPTION OF AMENDMENT/MODIFICA	TION (Organized by UCF section heading	gs Including solicitation/contract subject matter where fe	asible)
		ise section I.A.4A Optional (
	TAD16 2.1.5 CLIN 000	o Evaluation of NASA Cargo (duriest and
Items (CLINs) to include			and Pavload
Items (CLINs) to include Payload Changes). 2) Add	section 5.0 Evaluat	ion of NASA Cargo (Hanifest	
Items (CLINs) to include Payload Changes). 2) Add Changes) (CLIN 005) to th	section 5.0 Evaluat e Statement of Work.	ion of NASA Cargo (Hanifest a 3) Update Attachment V.L. A	
Items (CLINs) to include Payload Changes). 2) Add Changes) (CLIN 005) to the	section 5.0 Evaluat e Statement of Work.	ion of NASA Cargo (Hanifest a 3) Update Attachment V.L. A	
Items (CLINs) to include Payload Changes). 2) Add Changes) (CLIN 005) to the	section 5.0 Evaluat e Statement of Work.	ion of NASA Cargo (Hanifest a 3) Update Attachment V.L. A	
Items (CLINs) to include Payload Changes). 2) Add Changes) (CLIN 005) to the Reference Documents. 4) Up (b) (4) In conside	section 5.0 Evaluat e Statement of Work. pdate SOW section 2. (b) ration of this agree	ion of NASA Cargo (Hanifest a 3) Update Attachment V.L. A 1.1.1 Program Reviews. (4)	oplicable and
Items (CLINs) to include Payload Changes). 2) Add Changes) (CLIN 005) to the Reference Documents. 4) Up (b) (4) In consider releases the Government for the contract of the co	section 5.0 Evaluat e Statement of Work. pdate SOW section 2. (b) ration of this agree rom any and all liab	ion of NASA Cargo (Hanifest a 3) Update Attachment V.L. A 1.1.1 Program Reviews. (4) d to modification, the controllity under this contract for	ector hereby
Items (CLINs) to include Payload Changes). 2) Add Changes) (CLIN 005) to the Reference Documents. 4) Up (b) (4) In considereleases the Government fequitable adjustments att	section 5.0 Evaluat e Statement of Work. pdate SOW section 2. (b) ration of this agree rom any and all liab	ion of NASA Cargo (Hanifest a 3) Update Attachment V.L. A 1.1.1 Program Reviews. (4)	ector hereby
Items (CLINs) to include Payload Changes). 2) Add Changes) (CLIN 005) to the Reference Documents. 4) Up (b) (4) In considereleases the Government fequitable adjustments att	section 5.0 Evaluat e Statement of Work. pdate SOW section 2. (b) ration of this agree rom any and all liab	ion of NASA Cargo (Hanifest a 3) Update Attachment V.L. A 1.1.1 Program Reviews. (4) d to modification, the controllity under this contract for	epplicable and actor hereby r further
Items (CLINs) to include Payload Changes). 2) Add Changes) (CLIN 005) to the Reference Documents. 4) Up (b) (4) In considereleases the Government fequitable adjustments attachanges.	section 5.0 Evaluat e Statement of Work. pdate SOW section 2. (b) ration of this agree rom any and all liab ributable to such fa	ion of NASA Cargo (Hanifest a 3) Update Attachment V.L. A 1.1.1 Program Reviews. (4) d to modification, the contraction of the contract for circumstances giving the contract for contrac	actor hereby r further rise to these
Items (CLINs) to include Payload Changes). 2) Add Changes) (CLIN 005) to the Reference Documents. 4) Up (b) (4) In considereleases the Government fequitable adjustments attachanges. Except as provided herein, ellerms and condition to the AMME AND TITLE OF SIGNER (Type or provided in the AMME AND TITLE OF SIGNER (Type or provided in the AMME AND TITLE OF SIGNER (Type or provided in the AMME AND TITLE OF SIGNER (Type or provided in the AMME AND TITLE OF SIGNER (Type or provided in the AMME AND TITLE OF SIGNER (Type or provided in the AMME AND TITLE OF SIGNER (Type or provided in the AMME AND TITLE OF SIGNER (Type or provided in the AMME AND TITLE OF SIGNER (Type or provided in the AMME AND TITLE OF SIGNER (Type or provided in the AMME AND TITLE OF SIGNER (Type or provided in the AMME AMME AND TITLE OF SIGNER (Type or provided in the AMME AMME AND TITLE OF SIGNER (Type or provided in the AMME AMME AMME AMME AMME AMME AMME AMM	section 5.0 Evaluate Statement of Work. pdate SOW section 2. (b) ration of this agreerom any and all liable ributable to such factors of the document referenced in Herm 9 and 10 and 1	ion of NASA Cargo (Hanifest a 3) Update Attachment V.L. Al 1.1.1 Program Reviews. (4) d to modification, the contraction of the contract for	actor hereby r further rise to these
Items (CLINs) to include Payload Changes). 2) Add Changes) (CLIN 005) to the Reference Documents. 4) Up (b) (4) In considereleases the Government fequitable adjustments attachanges. Except as provided herein, all terms and condition 15A NAME AND TITLE OF SIGNER (Type or provided A. Jim Continuation)	section 5.0 Evaluat e Statement of Work. pdate SOW section 2. (b) ration of this agree rom any and all liab ributable to such fa	ion of NASA Cargo (Hanifest a 3) Update Attachment V.L. Al 1.1.1 Program Reviews. (4) d to modification, the controllity under this contract fourts or circumstances giving A or 10A as herelology changed remains unchanged and 15A NAME AND TITLE OF CONTRACTING Of Angelsah K. Vaughn	actor hereby r further rise to these
Items (CLINs) to include Payload Changes). 2) Add Changes) (CLIN 005) to the Reference Documents. 4) Up (b) (4) In considereleases the Government fequitable adjustments attachanges. Except as provided herein all terms and condition 15A NAME AND TITLE OF SIGNER (Type or produced).	section 5.0 Evaluate Statement of Work. pdate SOW section 2. (b) ration of this agree rom any and all liab ributable to such facts of the document referenced in Hern 9.	ion of NASA Cargo (Hanifest 3) Update Attachment V.L. Al 1.1.1 Program Reviews. (4) d to modification, the controllity under this contract fourts or circumstances giving A or 1DA as herelofore changed remains unchanged and 1SA NAME AND TITLE OF CONTRACTING Of Aneesah K. Vaughn NED 165 UNITED STATES OF AMERICA	actor hereby r further rise to these

NSN 7540-01-152-8070 Previous addition unusable STANDARD FORM 30 (REV 10-83) Prescribed by GSA FAR (48 CFR) 53 243 The following (highlighted in red) have been added to the contract and statement of work:

1) I.A.4A OPTIONAL CONTRACT LINE ITEMS (CLINS)

2.1.5 CLIN 0005 - EVALUATION OF NASA CARGO (MANIFEST & PAYLOAD CHANGES)

	FY 2014	FY 2015	FY 2016	FY 2017
1st Quarter Price	N/A		(b) (4	4)
2nd Quarter Price	/ L		/ A \	N/A
3rd Quarter Price			4	N/A
4th Quarter Price	1			N/A

*Additional services under CLIN 0005 will be procured via task order. NASA reserves the right to determine, on a quarterly basis, if there is a need to procure additional services using CLIN 0005. If it is determined that additional services are required, the appropriate option will be exercised and both parties agree a subsequent amendment to the task order will be executed to reflect the exercised option and implement the effort being exercised.

2) 5.0 Evaluation of NASA Cargo (Manifest and Payload Changes) (CLIN 0005)

Within the applicable firm fixed price limits provided in paragraph 2,1.5, CLIN 0005, the contractor shall perform studies and cooperate with NASA in evaluations for the accommodation of NASA cargo that does not specifically meet the criteria in SSP 50833, and for cargo on flights that are on task order but have not yet been given ATP, and related tasks or support. The enactment of these studies and support are not to exceed (b) (4) labor hours per quarter. These studies and support may include the resolution of form, fit, and function questions; evaluation of flight specific environmental parameters (such as thermal, radiation, illumination, vibration, etc.) to ascertain the feasibility of accommodation; evaluation of non-standard pressurized soft stow accommodations and evaluation of ground processing and cargo handling capabilities to meet off-nominal processing requirements; feasibility evaluations of proposed requirement changes in SSP50808 and SSP50833. Specific tasking shall be assigned by the Contracting Officer. Space X shall submit a deliverable during each quarterly review detailing the special tasks and studies that were completed under CLIN 0005. The CLIN 0005 deliverable will be in the form of stand-alone written report(s) or briefing

NNJ09GA04B Modification: 62

charts, in the contractor's standard format, accompanying an oral presentation, if required.

3) ATTACHMENT V.L. APPLICABLE AND REFERENCE DOCUMENTS

Applicable Documents are considered contractually binding. Unless otherwise specified elsewhere in this RFP, the entire document is considered contractually binding.

Reference Documents are provided for general context or information purposes and are not considered contractually binding.

Applicable Documents

Document #	Revision	Document Title
49 U.S.C. Subtitle IX, Ch. 701		Commercial Space Launch Activities
14 C.F.R. Ch, III		FAA Commercial Space Transportation Regulations
AS9100	В	Aerospace Quality Management Systems Requirements
ISO 90003	2004	Software Engineering – Guidelines for the Application of ISO 9001:2000 to Computer Software
NPR 1600.1	1	NPR for Security Programs
NPR 2810.1	Α	Security of Information Technology
NPR 8715.6	Baseline	NPR for Limiting Orbital Debris
SN-C-0005	D	Space Shuttle Contamination Control Requirements
SSP-30309	Е	Safety Analysis and Risk Assessment Requirements Document
SSP-30599	D	Safety Review Process
SSP-42003	Part 1: G Part 2: B	Space Station Manned Base to Mobile Servicing System ICD
SSP-50190	E	Contingency Action Plan
SSP-50525	Baseline	Security Management Plan
SSP-50808	*Rev C	ISS Interface Requirements Document
SSP-50833	Baseline	NASA Cargo IRD

^{*}DCN evaluations shall be performed under CLIN 0005 as directed.

4) Update SOW section 2.1.1.1 Program Reviews as follows:

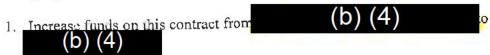
During the task order performance period, the Contractor shall conduct Program Reviews with NASA at least once per quarter beginning at task order start to report:

a) The status, closure plan and schedule for remaining ISS Integration and SSP 50808 compliance tasks, or tasks to be repeated in the event of changes to the vehicle

- (launch and orbital) baseline. This shall be the focus of the review when tasks are open.
- b) The integrated schedule and status, including updated work plans, for all missions with Authority to Proceed.
- c) Key schedule items from other Contractor activities that may affect the technical, cost and schedule risk to NASA missions such as but not limited to other program milestones and mission dates of other flights utilizing the same launch and orbital vehicles.
- d) Schedule Risks and Technical Risks, including risk statements, mitigation plans and mitigation schedules.
- e) Action items from previous program and technical reviews, including their status, closure plan, closure rationale.
- f) Minutes shall be published within one week of the meeting.
- g) A detailed list of all tasks, assignments, studies, and support performed under CLIN 0005.

All other terms and conditions of NNJ09GA04B remain unchanged and in full force and effect.

The purpose of this modification is to:



 Accordingly, Clause II.A.2, NFS 1852.232-77 Limitation of Funds (Fixed - Price Contract) (Mar 1989) is revised to read as follows in the first sentence of paragraph (a) and paragraph (c) subparagraph (1):

Of the total price of CLINs 0001 through 0004, the sum of (b) (4)

- (a) is presently available for payment and allotted to this contract.
- (c)(1) It is contemplated that funds presently allotted to this contract will cover work to be performed until (b) (4)
- 3. Replacement pages are provided herein.
- 4. All other terms and conditions remain unchanged and in full force and effect.