

2. AMENDMENT/MODIFICATION NO. 000095  
 3. EFFECTIVE DATE  
 4. REQUISITION/PURCHASE REQ. NO. See Schedule  
 5. PROJECT NO. (If applicable)

6. ISSUED BY CODE MSFC NASA/Marshall Space Flight Center Procurement Office Marshall Space Flight Center AL 35812  
 7. ADMINISTERED BY (If other than Item 6) CODE MSFC NASA/Marshall Space Flight Center PS22/Jeanette S. Swearingen Phone: 256-544-1395 jeannette.s.swearingen@nasa.gov Marshall Space Flight Center AL 35812

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) COLSA CORPORATION Attn: Misti Gray 6726 ODYSSEY DR NW HUNTSVILLE AL 35806-3302  
 9A. AMENDMENT OF SOLICITATION NO. (x)  
 9B. DATED (SEE ITEM 11)  
 10A. MODIFICATION OF CONTRACT/ORDER NO. x NNM04AA07C  
 10B. DATED (SEE ITEM 13) 12/04/2003  
 CODE FACILITY CODE

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers  is extended.  is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram 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) See Schedule Net Increase: \$755,000.00

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

CHECK ONE  
 A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.  
 B. THE ABOVE NUMBERED CONTRACT/ORDER 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 FAR 43.103(b).  
 C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  
 D. OTHER (Specify type of modification and authority) X Unilateral FAR 52.232-22 Limitation of Funds

E. IMPORTANT: Contractor  is not,  is required to sign this document and return \_\_\_\_\_ 1 \_\_\_\_\_ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  
 The purpose of Mod 95 is to incorporate the revisions associated with 2 efforts; Data Archive Common Methods and SpaceOps 2010 Support, for a total negotiated increase of \$ 283,091. Also, this modification is to provide incremental funding in the amount of \$ 755,000. The funding coverage date is changed to 11/13/09. Also, this mod corrects a mathematical calculations error for incremental funding.

LIST OF CHANGES:  
 Obligated Amount for this Modification: \$755,000.00  
 New Total Obligated Amount for this Award: \$130,269,836.00  
 Incremental Funded Amount changed: from \$129,514,836.00 to \$130,269,836.00  
 Incrementally Funded through date changed from 10/31/2009 to 11/13/2009  
 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) Patricia Beumer Director of Contracts  
 16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Jeannette S Swearingen  
 15B. CONTRACTOR/OFFEROR Digitally signed by Pat Beumer DN: cn=Pat Beumer, email=pbeumer@colsa.com, ou=COLSA Corp, c=US  
 15C. DATE SIGNED September 17, 2009  
 16B. UNITED STATES OF AMERICA  
 16C. DATE SIGNED Sept 18, 2009 (Signature of Contracting Officer)

**CONTINUATION SHEET**

REFERENCE NO. OF DOCUMENT BEING CONTINUED  
NNM04AA07C/000095

PAGE OF  
2 10

NAME OF OFFEROR OR CONTRACTOR  
COLSA CORPORATION

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>NEW ACCOUNTING CODE ADDED: Account code: 62VP24/6100.2550/62/FC000000/916925.02.01/000/2550 /62/SCEX22009D/515A/1/2 Cost Center 62VP24 GI Account 6100.2550 Order FC000000 Quantity: 0 Amount: \$35,000.00 Percent: .06503 Subject To Funding: Payment Address:</p> <p>NEW ACCOUNTING CODE ADDED: Account code: 62EO50/6100.2550/62/FC000000/769347.05.08.08.01.0/ 1/000/2550/62/EXCX22009D/733B/1/2 Cost Center 62EO50 GI Account 6100.2550 Order FC000000 Quantity: 0 Amount: \$720,000.00 Percent: 1.33783 Subject To Funding: Payment Address:</p> <p>Delivery Location Code: MSFC NASA/Marshall Space Flight Center Marshall Space Flight Center AL 35812</p>				

Continued from Block 14. Description of Amendment/ Modification;

1. The purpose of Modification 95 to Contract NNM04AA07C is to modify the contract as follows:
  - Provide incremental funding in the amount of \$ 755,000, with the anticipated funded through date of November 13, 2009.
  - Implement the negotiated change to revise the Performance Work Statement (PWS) by adding Attachment J-1-A entitled, “ Data Archive Common Methods Prototype”, and Attachment J-1-B entitled, “ SpaceOps 2010 Booth Exhibit. Thus, the contract value is increased by \$ 283,091.
  - Correct funding calculation errors from Mod 93 and Mod 94 for total amount allotted.

Thus a summary of the contract changes are delineated in the table below and the text as follows:

<i>Mod 95</i>	Negotiated Estimated Cost	Maximum Award Fee	Unearned Award Fee	Maximum Incentive Fee	Unearned Incentive Fee	Total Contract Value	Total Amount Allotted
Previous Amt	\$156,441,999	\$6,253,189	(\$135,314)	\$3,367,104	(\$152,216)	\$165,774,762	\$129,514,837
This Mod	\$269,184	\$9,040	\$0	\$4,867	\$0	\$283,091	\$755,000
Total	\$156,711,183	\$6,262,229	(\$135,314)	\$3,371,971	(\$152,216)	\$166,057,853	\$130,269,837

This is a CPAF /IF contract.

2. Clause B.2– Estimated Cost, Award Fee And Performance Incentive Fee is changed as follows;

Paragraph (a) is changed to reflect the preceding adjustments to estimated cost, maximum award fee, maximum incentive fee, and contract value.

Paragraph (b) is changed to reflect the tabular representation of the adjustments to estimated cost and fee as outlined in the preceding paragraph is updated.

Paragraph (c) is changed to reflect the adjustments to the Period 13 Maximum Award Fee from \$ 448,824 to \$ 457,864, and the Incentive Fee values from \$ 241,674 to \$ 246,541 .

3. Clause B.6, “ Contract Funding” to add \$ 755,000 of incremental funding pursuant to the Limitation of Funds clause FAR 52.232-22. The estimated end date for funding coverage is extended from ATP through November 15, 2009.
4. Accordingly, Clause B.6 Contract Funding is hereby revised to increase Estimated Cost by \$ 712,495 (from \$ 121,943,420 to \$ 122,655,915 ). Award Fee is hereby increased by \$ 27,628 (from \$ 4,972,679 to \$ 5,000,307 ), and Performance Incentive Fee is hereby increased by \$ 14,877 (from \$ 2,598,738 to \$ 2,613,615).

5. Attachment J-1 Performance Statement of Work is amended by adding Attachments J-1-A and J-1-B.

6. As a result of the above, the following paragraphs/sections of the contract are revised or added. Slip-sheets to the contract are included with this modification reflecting these revisions. Changes are noted by a vertical line on the right side and/or by shading.

<b>Pages Deleted</b>	<b>Pages Substituted/Added</b>
B-1	B-1
B-2	B-2
B-6	B-6
	Attachment J-1-A and J-1-B

7. In consideration of the modifications agreed to herein as complete equitable adjustments for all claims arising out of or attributable to the issuance of contract change(s) and or contractor proposals listed below, the contractor hereby releases the Government from any and all liability under this contract for further equitable adjustments to such facts or circumstances giving rise to said contract change(s) and/or contractor proposals, and for such additional obligations as may be required by this modification. As a result of the above, the following paragraphs/sections of the contract are revised or added. Slip-sheets to the contract are included with this modification reflecting these revisions. Changes are noted by a vertical line on the right side and/or by shading.

<b>Contract Change</b>	<b>Contractor Proposals</b>
Mod 95	COLSA Proposal No. 09-07-132 dated 08/5/09

8. All other terms and conditions of this contract remain unchanged.

# PART I - THE SCHEDULE

---

## SECTION B - SUPPLIES OR SERVICES AND PRICE/COSTS

---

### **B.1 Supplies And/Or Services To Be Furnished**

(a) In a manner consistent with the Marshall Space Flight Center (MSFC) values, the Contractor shall provide all resources (except as may be expressly stated in this contract as furnished by the Government) necessary for performing the "Huntsville Operations Support Center (HOSC)" in accordance with the Performance Work Statement, Attachment J-1.

(b) This is a cost-reimbursement contract with both award fee and performance incentive fee criteria (CPAF/IF). The award fee (subjective evaluation) and performance incentive fee (objective evaluation) will be assessed in accordance with the Fee Evaluation Plan (FEP), Attachment J-7.

(c) IDIQ Portion deleted by Modification 83 12/31/08

(End of Clause)

### **B.2 Estimated Cost, Award Fee And Performance Incentive Fee**

(a) The estimated cost of this contract is \$156,711,183. The maximum award fee is \$6,262,229. The unearned award fee is (\$135,314). The maximum performance incentive fee is \$3,371,971. The unearned performance fee is (\$152,216). The estimated cost plus maximum award fee and maximum performance incentive fee minus the unearned award fee and unearned performance incentive fee is \$166,057,853.

(b) A breakout of estimated cost, maximum award fee, unearned award fee, maximum performance incentive fee, unearned performance incentive fee, and the total minus unearned fee for the base contract period is shown below:

<u>Period Covered</u>	<u>Estimated Cost</u>	<u>Maximum Award Fee</u>	<u>Unearned Award Fee</u>	<u>Maximum Perf. Incentive Fee</u>	<u>Unearned Performance Incentive Fee</u>	<u>Total Minus Unearned Fees</u>
1/1/04 - 12/31/10	\$ 156,711,183	\$ 6,262,229	(\$ 135,314)	\$ 3,371,971	(\$ 152,216)	\$ 166,057,853

Breakout of estimated cost, and fee for Options periods was deleted by Modification 83 12/31/08.

(c) The maximum award fee and maximum performance incentive fee for each of the contract periods specified above is hereby divided and allocated into individual six month evaluation periods during contract performance in order to calculate award and performance incentive fee earned.

<u>Evaluation Period</u>		<u>Maximum Award Fee</u>	<u>Maximum Incentive</u>
01/01/04-06/30/04	1	\$485,012	\$208,928
07/01/04-12/01/04	2	\$480,581	\$269,221
01/01/05-06/30/05	3	\$429,446	\$241,686
07/01/05-12/31/05	4	\$419,599	\$236,384
01/01/06-06/30/06	5	\$423,426	\$238,447
07/01/06-12/31/06	6	\$421,326	\$237,316
01/01/07-06/30/07	7	\$425,065	\$228,882
07/01/07-12/31/07	8	\$432,916	\$233,108
1/01/08-06/30/08	9	\$457,610	\$246,405
07/01/08-12/31/08	10	\$457,687	\$246,447
01/01/09-06/30/09	11	\$461,436	\$248,466
07/01/09-12/31/09	12	\$461,436	\$248,466
01/01/10-06/30/10	13	\$457,864	\$246,541
07/01/10-12/31/10	14	\$448,825	\$241,674
		\$ 6,262,229	\$ 3,371,971

**B.5 Premiums For Scheduled Overtime (MSFC 52.222-90) (Feb 2001)**

Pursuant to the clause entitled "Payment for Overtime Premiums," the amount of overtime premium authorized shall not exceed the amount specified below for the indicated period.

<u>Period</u>	<u>Amount</u>
Base Period (Yrs 1 - 3)	(b)(4)
Option Period 1	
Option Period 2	

(End of Clause)

**B.6 Contract Funding (NFS 1852.232-81) (Jun 1990)**

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is **\$ 130,269,837**. This allotment is for Huntsville Operations Space Center (HOSC) Mission Support Services and covers the following estimated period of performance: contract award through **November 13, 2009**.

(b) An additional amount of **\$ 7,613,922** is obligated under this contract for payment of fees.

(c) Recapitulation of funding is as follows:

	Previous	This Action	Total
Estimated Cost	121,943,420	\$712,495	122,655,915
Award Fee	4,972,679	\$27,628	5,000,307
Performance Incentive Fee	<u>2,598,738.00</u>	<u>\$14,877</u>	<u>2,613,615</u>
Total Sum Allotted	\$129,514,837	\$755,000	\$130,269,837

**Task Ordering Procedure (NFS 1852.216-80) (Oct 1996) Deleted by Modification 83 12/31/08**

**IDIQ Task Order Performance Schedule Deleted by Modification 83 12/31/08**

## ATTACHMENT J-1-A

### NASA MSFC Data Archive Common Methods Prototype Statement of Work (SOW)

The Contractor shall develop a prototype Distributive Data Archive (DDA) capability with the objective of demonstrating the benefits of 1) accessing vehicle design & development, engineering support, and long term operations data, and 2) the feasibility of implementing an architecture based on established capabilities utilized by current industry and NASA methods and practices. The Contractor shall provide a level of effort to support MSFC Mission Operations through EO50 to demonstrate the capability to:

1. Establish a “multi-site” implementation using iRODS to provide a “virtual collection” of data
2. Access disparate data types such as data files and databases
3. Collect metadata on those files requiring the establishment of “rules” to collect the appropriate attributes
4. “Automatically” register existing data file archives
5. Input and retrieve data files into/from the “virtual collection”
6. Search for files within the virtual collection based on metadata criteria using a common user interface (UI) and investigate the integration of the UI into the AEON Portal.

In support of this effort, the Contractor will also:

1. Procure necessary hardware – HP 710 or equivalent
2. Procure software and software tools
3. Conduct 3 demonstrations of capabilities:
  - a. Demo #1 ~11/13/09
  - b. Demo #2 ~1/8/10
  - c. Demo #3 ~2/18/10
4. Document the lessons learned
5. Document the recommendations and findings

Period of Performance: ATP – March 11, 2010

## ATTACHMENT J-1-A

### Support for SpaceOps 2010 Booth Exhibit Statement of Work (SOW)

The Contractor shall support the 2010 SpaceOps Booth Exhibit via the following objectives;  
The Contractor shall support the SpaceOps Booth Exhibit at the Von Braun Center on April 25-30, 2010 via the following objectives;

1. Support the build up and configuration of computer systems to run Huntsville Operations Support Center (HOSC) software to display live ISS telemetry stream real-time ISS voice.
  - a. Load EPC and EHS Web Applications on Laptop Computers to run real-time ISS telemetry displays;
    - i. Allow for accounts on the PC's where Telesciene Resource Kit (TReK) developers could load software to support TReK demos. (This may also be accomplished by allowing the TReK developers to plug there PC's into the LAN that will be established at the VBC)
  - b. Load Checkpoint Virtual Private Network (VPN) software to allow for remote access to the HOSC from the VBC
  - c. Load Internet Voice Distribution Software (IVoDS) and provide a login account to monitor a TBD set of HOSC Cadre Loops and Space to Ground ISS voice loops
  - d. Provide network support to connect the above resources to the VBC network drop and allow for connectivity to the HOSC
    - i. Configure Static IP address with VBC network
    - ii. Provide IP address back to HOSC to condition Firewalls to allow for remote connectivity
  - e. Need to support a collaborative Delay Tolerant Network (DTN) demo with JSC.
    - i. May make use of DTN Experimental Network (DEN) at HOSC
    - ii. May be a self contained Demo using HOSC developed DTN gateways and Smart Bits Delay /Disruption Generator running on a local area network at the VBC
  - f. Need to script a collaborative demo of a Launch Control Center demonstration between JSC, KSC and MSFC.
    - i. This would involve a scenario where KSC would simulate a launch count down while in control of a vehicle on their pad
    - ii. Then as the vehicle is launched and clears the pad, JSC would be responsible for control ops while the vehicle is in transit to it destination which might be the moon, mars or some other orbiting space station
    - iii. MSFC would simulate being in control of some type of payload that would be onboard the vehicle in route to a science research rack at the destination
    - iv. Each center's control center would be represented by the console they are manning at the booth. These consoles would have laptops (provided by the home center) connected on a local area network running some type of messaging system that will be used for interoperatable control center ops (i.e. constellation, C3I)

- v. This could be an Asynchronous Messaging System (AMS) that is an CCSDS standard that the HOSC has developed an implementation of.
- 2. Provide support to help with coordination of integrating JSC and KSC demonstrations into the SpaceOps booth.
  - a. Support Bi-weekly telecons with JSC and KSC to help determine what applications they will be integrating into the SpaceOps booth
  - b. Provide network support to help integrate them in the local network at the VBC center
    - i. Provide IP addresses from HOSC router running at VBC that will be splitting the VBC network between JSC, KSC and MSFC
- 3. Provide inputs to help with the making of the booth DVD and the brochures that will be handed out in the booth
  - a. This DVD will explain the technologies behind the demo's that KSC, JSC and MSFC will be running in the booth.
  - b. Need to coordinate with KSC and JSC to make sure their demo's are explained in the DVD
  - c. The material on the DVD will be used to generate a brochure that will be handed out at the booth
- 4. Provide support to help with dry run rehearsal in February 2010 timeframe
  - a. KSC and JSC reps will be bring their hardware down to support an integrate dry run of the booth demo's
- 6. Provide personnel to man the booth during the days of the conference to run the software demo's on the computers and perform the booth demonstrations in late April 2010 timeframe for the following potential experiments:
  - o Live ISS telemetry Demonstration using EHS/EPC
  - o DTN experiment
  - o IVoDS demonstration
  - o AMS control center experiment
  - o TReK controlling robot experiment
- 7. Procure needed hardware to support the SpaceOps 2010 booth
  - o 3 - laptop PC's
  - o 3 - 24" monitors
  - o 3 - 65" large displays
  - o Video switching capability to switch up to 10 inputs between 3 outputs
  - o Audio switching capability to switch 10 inputs between 3 outputs
  - o Any cabling to support above hardware configurations

Period of Performance: (ATP) - the SpaceOps 2010 booth exhibit:

J-1-B(2)