

ORDER FOR SUPPLIES OR SERVICES

Page 1 of 2 Page(s)

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER 8/1/06		2. CONTRACT NO. (If any) NNL04AA55C		6. SHIP TO:		
3. ORDER NO. NNL06AC59T		4. REQUISITION/REFERENCE NO. SEE BLOCK 9		a. Name Of Consignee NASA LANGLEY RESEARCH CENTER		
5. ISSUING OFFICE (Address correspondence to) OFFICE OF PROCUREMENT				b. Street Address 9A LANGLEY BLVD		c. City HAMPTON
7. TO:				d. State VA	e. Zip Code 23681-2199	
a. Name Of Contractor HEMANT MAINTHIA				8. TYPE OF ORDER		
b. Company Name MAINTHIA TECHNOLOGIES, INC.				<input type="checkbox"/> a. PURCHASE		
c. Street Address 7055 ENGLE ROAD, STE 502				REFERENCE YOUR: Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.		
d. City CLEVELAND		e. State OH	f. Zip Code 44130	<input checked="" type="checkbox"/> b. DELIVERY - Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.		
9. ACCOUNTING AND APPROPRIATION DATA PR: 4200166296; OBLIGATE \$100,000.00 (COMPLETE)				10. REQUISITIONING OFFICE LaRC		
11. BUSINESS CLASSIFICATION (Check appropriate box(es))						
<input type="checkbox"/> a. Small <input type="checkbox"/> b. Other Than Small <input checked="" type="checkbox"/> c. Disadvantaged <input type="checkbox"/> d. Women-Owned						

12. F.O.B. POINT DESTINATION		14. GOVERNMENT B/L NO. N/A	15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date) 7/31/07	16. DISCOUNT TERMS N/A
13. PLACE OF				
a. Inspection NASA LaRC	b. Acceptance NASA LaRC			

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
1.0	Develop Safety & Mission Assurance procedures to support closure of several gap analyses, past and future IPS audits, and development of Center Project Management Procedures I/A/W Attached SOW.					
1.1	Estimated Cost	1	COST		\$126,261	
1.2	Maximum Fee	1	FEE		\$7,576	
1.3	Hampton Business Tax	1	TAX		\$776	

SEE BILLING INSTRUCTIONS ON REVERSE	18. SHIPPING POINT	19. GROSS SHIPPING WEIGHT	20. INVOICE NO.		N/A	17(h) TOT. (Cont. pages)
	21. MAIL INVOICE TO:					NTE \$134,613 CPFF
	a. Name NASA LANGLEY RESEARCH CENTER, FINANCIAL MANAGEMENT OFFICE					
	b. Street Address (or P. O. Box) MAIL STOP 175					
c. City HAMPTON		d. State VA	e. Zip Code 23681-2199			
22. UNITED STATES OF AMERICA BY (Signature)			23. NAME (Typed) MICHAEL T. STUBBS			
TITLE: CONTRACTING/ORDERING OFFICER						

Task NNL06AC59T

Safety and Mission Assurance Procedure Development

Purpose, Objective or Background of Work to be Performed

The purpose of this task is to develop S&MA procedures to support closure of several gap analyses, past and future IPS audits, and development of Center project management procedures.

Description of the Work to be Performed

1. The Contractor shall provide a process and procedures sufficient to conduct quality assurance assessments at contractor facilities in support of Center flight projects. The audit procedure shall include various checklists to conduct these assessments and shall include ISO 9001 and AS9100 checklists at a minimum.
2. The Contractor shall provide S&MA requirements, processes and procedures sufficient to support the development of the LaRC Flight Project Management Book. Center Procedures and internal Office Procedures that are needed to support the S&MA requirements in the book shall also be developed.
3. The Contractor shall review S&MA requirements contained in Headquarters S&MA documents against the LaRC MAB procedures and insure an adequate flow down of requirements exists in the Center procedures as well as the establishment of objective quality evidence. Develop, update or revise procedures as required. Develop matrices and/or document trees as necessary to show a concise flow down of requirements.

Deliverables

	<u>Due</u>
1. Submit status report electronically via e-mail to NASA Technical Monitor.	Weekly
2. Contractor Quality Assurance Audit Procedures and Checklists – format consistent with existing Center LMS procedures.	9/30/06
3. Updated Chapter 7 of Flight Project Management Book – Microsoft Word.	10/30/06
4. Procedures to support S&MA FPM Book requirements - format consistent with existing Center LMS procedures.	1/31/07
5. Review, develop and revise procedures, document trees and matrices to support IPS flow down reviews.	7/31/07

Government Furnished Items

The Government will provide a copy of the Flight Project Management Book and several examples of audit procedures.

Other information needed for performance of task

1. All deliverables will be as noted above.
2. Contractor will have access to various S&MA documents and existing procedures via Web
3. Close coordination with the Technical Monitor will be required

Period of Performance.

Planned start date: 8/1/06

Completion date: 7/31/07

NASA Technical Monitor.

[REDACTED]

[REDACTED]

ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES

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IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER 06/24/2008	2. CONTRACT NO. (if any)	6. SHIP TO	
3. ORDER NO. NNL08AC29T		4. REQUISITION/REFERENCE NO. 4200256635	
5. ISSUING OFFICE (Address correspondence to) NASA/Langley Research Center 9B Langley Blvd., Bldg. 1195B M/S 126 Hampton VA 23681-2199		a. NAME OF CONSIGNEE NASA/ Langley Research Center	
b. STREET ADDRESS		c. CITY Hampton	d. STATE VA
		e. ZIP CODE 23681-2199	

7. TO:	f. SHIP VIA
a. NAME OF CONTRACTOR MAINTHIA TECHNOLOGIES	
b. COMPANY NAME	
c. STREET ADDRESS 7055 ENGLE RD STE 502	
d. CITY CLEVELAND	e. STATE OH
	f. ZIP CODE 44130-8456

9. ACCOUNTING AND APPROPRIATION DATA 4200256635	10. REQUISITIONING OFFICE NASA/Langley Research Center
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11. BUSINESS CLASSIFICATION (Check appropriate box(es))	12. F.O.B. POINT Destination
<input type="checkbox"/> a. SMALL <input type="checkbox"/> b. OTHER THAN SMALL <input checked="" type="checkbox"/> c. DISADVANTAGED <input type="checkbox"/> d. WOMEN-OWNED <input type="checkbox"/> e. HUBZone <input type="checkbox"/> f. EMERGING SMALL BUSINESS	<input type="checkbox"/> g. SERVICE-DISABLED VETERAN-OWNED

13. PLACE OF	14. GOVERNMENT B/L NO.	15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date) 07/02/2008 6/24/2009	16. DISCOUNT TERMS NT30
a. INSPECTION Destination	b. ACCEPTANCE Destination		

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
001	INCO TERMS 1: FOB INCO TERMS 2: Destination The Contractor shall provide Orion Safety & Mission Assurance Support IAW attached SOW; POP 6/24/08 - 6/24/09 Continued ...				148,461.00	

18. SHIPPING POINT	19. GROSS SHIPPING WEIGHT	20. INVOICE NO.	17(h) TOTAL (Cont. pages)
21. MAIL INVOICE TO:			
a. NAME	NSSC Shared Services Center		\$148,461.00
b. STREET ADDRESS (or P.O. Box)	Financial Management Division (FMD) Accounts Payable Bldg 1111, C. Road		17(i) GRAND TOTAL
c. CITY	d. STATE	e. ZIP CODE	
Stennis Space Center	MS	39529	\$148,461.00

22. UNITED STATES OF AMERICA BY (Signature) 	23. NAME (Typed) Kimberly D. Cone TITLE: CONTRACTING/ORDERING OFFICER
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**ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION**

PAGE OF PAGES

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IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER
06/24/2008

CONTRACT NO.

ORDER NO.
NNL08AC29T

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY ORDERED (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)	QUANTITY ACCEPTED (G)
	Incrementally Funded Amount: \$65,195.00 Estimated Cost: \$139,250 Estimated Fee: 8,355 Hampton Business Tax: 856 Total CPPF: \$148,461 Incrementally Funded amount: \$65,195 through 9/30/08					

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

1. **Task Order Number:** NNL08AC29T
Title: Orion Safety and Mission Assurance (S&MA) Support

2. **Purpose, Objective or Background of Work to be Performed.**
 The purpose of this task is to provide S&MA support to the Orion Projects [Flight Test Article (FTA), Launch Abort System (LAS), Landing System (LS), and Relative Navigation Sensor Detailed Test Objective (DTO)] working closely with the LaRC S&MA personnel in the Mission Assurance Branch.

3. **Description of the Work to be Performed.**
 The Contractor shall perform the following activities:

1. Review, provide comments, and identify noncompliances for Orion S&MA documentation.
2. Review, provide comments, and identify noncompliances for Orion fault tree analyses; hazard analyses; FMEAs; and safety data packages.
3. Update hazard analysis as required.
4. Review GIDEP for parts used on the Orion Projects.
5. Prepare documentation required for a HQ Safety and Mission Success Review (SMSR) and Certificate of Flight Readiness (CoFR).
6. Prepare documentation for formal Project reviews, as required.
7. Review, gather information, and provide comments on the Orion purchase requests marked critical and complex.
8. Attend and participate in Orion meetings. Meetings may be attended remotely with prior coordination and approval of the meeting chair. Approximately 5 trips (locations are TBD) may be required during the period of performance. The meetings will last an average of 3 days.

The Contractor shall provide all required deliverable documentation and reports to the NASA Technical Monitor in accordance with the following:

<u>Deliverables</u>	<u>Due</u>
Status Reports <ul style="list-style-type: none"> • Meetings attended • Documentation reviewed • Narrative as to what was evaluated • Any recommendations, findings, observations • Positive and negative findings and recommendations for corrective action • Time spent on this task 	Weekly
Closure Report <ul style="list-style-type: none"> • Hardcopy of all weekly reports 	June 24, 2009

4. Government Furnished Items.

- Orion documents that reside on Windchill, ICE, Wiki, or a PBMA site will be provided until access is granted.
- Workspace on site at Langley Research Center, with internet connectivity.

5. Other information needed for performance of task.

- All deliverables will be prepared in MS Office.
- Non-Disclosure Agreement maybe required.
- Participation will be required in meetings, teleconferences, ViTS as necessary.
- Travel required.

6. Security clearance required for performance of work.

- Not Required.

7. Period of Performance.

Start date: 6/24/2008

Completion date: 6/24/2009

8. NASA Technical Monitor.

[REDACTED]

[REDACTED]

Research Facilities Services Competency

Construction Phase Support Task Order
 CLIN 01 - Cost Plus Fixed Fee
 Contract No.: NNL04AA05B

Initiation Date: 05/09/06

Facility No. and Name: B1238	Task No.: 1042	Order No.: NNL 04AC12T
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Title:
FUED/GIS Evaluation

Description:
Provide evaluation of the FUED drawing data base for conversion to GIS in accordance with the attached statement of work.

Continue on separate sheet if necessary.

Deliverables: Inspection contract daily logs, documentation and Test results

Requester Organizational Code	Accounting Code	Change in Scope			
D4A	23-39-2583-20	Rev. 1	Rev. 2	Rev. 3	Rev. 4
Schedule & Resources		Original			
Purchase Request No.	4200157439	167299	174285	-	
Required Completion Date	04/15/07 ¹²⁻³⁰	4-15-07	4-15-07	3-30-08	7-30-08
Estimated Cost	\$8,254.00	36,291	73,674	73,674	73,674
Fee	\$578.00	2,541	5,158	5,158	5,158
Total Task Order Funding	\$8,832.00	38,832	78,832	78,832	78,832

APPROVALS		Change in Scope Concurrences			
		Rev. 1	Rev. 2	Rev. 3	Rev. 4
 Task Monitor	47230 Ext.	5/09/06 Date	8-9-06 768	9-13-06 768	3-21-08 768
 Authorized For Contract Performance	COTR	Date	8-9-06 768	9-12-06 768	8-22-07 768
 Accepted By	Cont. Mgr.	Date	5/30/06 8-9-06	8/11/06 8-9-06	3-21-08 8-9-06

TASK ORDER CLOSEOUT		
Estimated Cost _____	Task Order Closeout Date _____	Services Completion Date _____
Expended Cost _____	Project Mgr. _____	Date _____
Fee _____	Contract Mgr. _____	Date _____
Total T.O. Dollars _____	COTR _____	Date _____

Statement of Work for FUED Spatial Data Support

Scope of Effort

This effort addresses a study and report to address possible changes to the Facilities and Utilities Electronic Database (FUED) program for NASA Langley Research Center (LaRC). The goal of the task will be to define alternatives for an efficient and effective transition from the current Computer Aided Design and Drafting (CADD) capability to a Geographic Information System (GIS) environment, thus eliminating parallel data maintenance environments. Additionally, this effort shall address an environment where electronic systems are used for in-field mapping and documentation of utility features is desirable. This effort is expected to lead to subsequent efforts that will implement various aspects of the recommendations provided under this task.

Effort Description

The contractor shall provide services to address:

- Review documented requirements (SOW, standards, etc.)
- Interview of Survey Team personnel (1 day minimum)
- Interview of GIS Team personnel (1 day minimum)
- Interview of designated COD management

This effort shall be conducted by personnel familiar with current industry practices for developing and maintaining spatial data sets in electronic formats (GIS focused with CAD familiarity desirable). Documented requirements to be reviewed include Survey contract statement of work, NASA HQ spatial data standards and Master Plan guidance, and SDSFIE, FGDC, National Map guidance, and any other applicable utility data models.

The interviews and document reviews will be conducted with the goal of identifying critical functions and processes that may not be adequately documented, essential data that may not be adequately emphasized to ensure that safety focus is maintained, effort that may be related to legacy processes and not necessary for a spatial data environment of the future, and possible process changes to increase efficiency and effectiveness for use and maintenance of the FUED data.

Issues to be addressed include:

- Contiguous lines and polygons; unless obviously disconnected, all lines should be continuous with closed intersections, “dangles” or “fuzzy” nodes need to be addressed. All line features should be clear of node errors and all polygon features should be clear of slivers and label errors. Where flow direction is noted or can be readily derived, lines should reflect flow direction.

- Attributes vs. annotation; incorporation of CAD annotation text as GIS attributes with possible display as labels.
- Electronic field systems: recommendations for more efficient utility marking by use of electronic systems such as GPS/OTS/tablets should be addressed. Incorporation of field notes into final database should be addressed.
- Symbology; utilization of line fonts vs. double lines, manually placed spaces, and manual placed text in lines.

Options for possible process changes based on interviews and knowledge of industry practices shall be provided in a final written report. Additionally, the report shall provide preliminary estimates for labor and schedule for each option. The report shall be explained in a final out-briefing.

Background:

Langley Research Center continues down the path toward development of an Integrated Utility Information Management capability based on contemporary spatial data technology. FUED has been the basis for a majority of this spatial data, it provides reference details to support digging permits and numerous other processes which require spatial data at LaRC. Some of the other process that requires spatial data includes designs for facility and utility systems and Master Plan. A paramount requirement is integrity of data to support personnel safety and ensure against interruptions in facility operational status.

The FUED CAD data evolved from manually digitized ~40-year-old manual sector drawings that were reportedly developed based on a local USHER Datum (NAD 27). Accuracy for original drawings was stated as 6 inch. Subsequently the sector drawings were stitched together in CAD to provide an integrated view of the Center. Smoothing of alignment errors at sector boundaries were not addressed in CAD due to concerns of inducing error; connectivity was provided by adding horizontal and vertical “fix” lines along sector boundaries.

Additional data refinement efforts that occurred over the years included projection of integrated sector data set to NAD 83 HARN Datum and elimination of text outside borders and associated specialized data management and plotting routines for all FUED sectors in the integrated database. Efforts that were not successfully included layer reduction and standardization and a task to address elimination of “wipe-out” or text haloing.

The current GIS data evolved from the CAD data with some correction based on aerial photos and survey grade GPS. Real Time Kinematic GPS and associated optical total station technology were pursued to develop a more accurate and repeatable measurement capability to map spatial features at LaRC. Additionally, a Geodetic Control network was implemented to ensure that the measurement framework for the reference monuments and GPS was as accurate as possible.

The GIS Team has pursued migration of FUED to an integrated environment for over 10 years with limited success. Previous Government and contract management, which clung to legacy processes, are no longer impediments to progress. This study will provide an independent third party analysis that will help ensure the most efficient and effective course for the future of LaRC is considered.

Government Furnished

The Government shall provide access to CAD drawing files, hardcopy documentation, and GIS data sets. The Contractor shall have access to servers, software, workstation, peripherals, and reference data, including, but not limited to, FUED, GIS, Master Plan, GPS observations, and Aerial Photos, located in the Survey and GIS Team facility in Building 1238 for the term of the contract.

Access to this data is only for the term of this study task. After completion of the task the contractor shall erase all spatial data at the conclusion of this effort and is not authorized to share this data with others unless explicitly stated in writing by a government representative.

Schedule of effort

The completion of this task shall be within 45 days from the date of contract award. Within one week after award, the Contractor shall submit an implementation plan addressing specific milestones. This proposed schedule will help facilitate schedule coordination for interviews and final presentation.

Final Deliverables

The contractor shall provide a final report in MS Word format and a briefing. Graphics for briefing to be provide in MS Power Point format. All files to be emailed to a designated government representative.

[REDACTED]

Research Facilities Services Competency

Construction Phase Support Task Order
 CLIN 01 - Cost Plus Fixed Fee
 Contract No.:>NNL04AA05B

Initiation Date: 06/21/05

Facility No. and Name: Various Facilities,	Task No.: 2005	Order No.: NNL 04AC13T
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Title:
Elevator Certifications June '05

Description:
Provide annual elevator certification and load test if noted for the following elevator and wheel chair lifts

ELV00001 / 1220 - FULL LOAD TEST ELV00005 / 1194 ELV00006 / 1194 ELV00010 / 648 ELV00019 / 1230 - FULL LOAD TEST ELV00024 / 1244 ELV00026 / 1268 ELV00033 / 644 ELV00035 / 647 - FULL LOAD TEST ELV00037 / 1152 - FULL LOAD TEST ELV00041 / 1152 WCL00003 / 1222 WCL00005 / 1213	ELV00003 / 1251 - FULL LOAD TEST ELV00007 / 1202 - FULL LOAD TEST ELV00015 / 1212 - FULL LOAD TEST ELV00022 / 1236 - FULL LOAD TEST ELV00025 / 1247A ELV00030 / 1293C ELV00034 / 645A ELV00036 / 1208 ELV00038 / 1230 - FULL LOAD TEST WCL00002 / 1134 WCL00004 / 1251 WCL00006 / 1236
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Continue on separate sheet if necessary.

Deliverables: Elevator certification documentation and evaluation logs

Requester Organizational Code	Accounting Code	Change in Scope			
D4A		Rev. 1	Rev. 2	Rev. 3	Rev. 4
Schedule & Resources	Original				
Purchase Request No.					
Required Completion Date	07/15/05				
Estimated Cost	\$0.00				
Fee	\$0.00				
Total Task Order Funding	\$10,056.00				

APPROVALS		Change in Scope Concurrences			
		Rev. 1	Rev. 2	Rev. 3	Rev. 4
Task Monitor	Ext. Date				
Authorized For Contract Performance	COTR <u>6/24/05</u> Date				
Accepted By	Cont. Mgr. <u>6/24/05</u> Date				

TASK ORDER CLOSEOUT		
Estimated Cost _____	Task Order Closeout Date _____	Services Completion Date _____
Expended Cost _____	Project Mgr. _____	Date _____
Fee _____	Contract Mgr. _____	Date _____
Total T.O. Dollars _____	COTR _____	Date _____

Mainthia Technologies Inc.
Maintenance QA Inspection Unit

Summary of [REDACTED] Elevator Inspectors Report

7/5/05

[REDACTED] Elevators recently completed the annual certification inspection and load tests.

Three elevators and two wheel chair lifts require re-inspection

Bldg-1194 ELV00005

Bldg-1202 ELV00007

Bldg-1212 ELV00015

Bldg-1236 WCL00006 *NOTE this unit has been Red Tagged (see inspectors notes)

Bldg-1251 WCL00004 *NOTE this unit has been Red Tagged (see inspectors notes)

Eleven elevators were sited for non compliance with ASME17-1-2000 8.6.10.1 (monthly test and logging of firemans recall.

Bldg-644 ELV00033

Bldg-645A ELV00034

Bldg-647 ELV00035

Bldg-648 ELV00010

Bldg-1152 ELV00041

Bldg-1194 ELV00005

Bldg-1194 ELV00006

Bldg-1230 ELV00038

Bldg-1230 ELV00019

Bldg-1244 ELV00024

Bldg-1247 ELV00025

Four elevator machine rooms were sited for missing fire extinguishers per ASME17.1-2000 2.27.1.2

Bldg-1208 ELV00036

Bldg-1212 ELV00015

Bldg-1236 ELV00022

Bldg-1293 ELV00030

All violations found have been given 30 days to correct

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Research Facilities Services Competency

Construction Phase Support Task Order

CLIN 01 - Cost Plus Fixed Fee

Contract No.: NNL04AA05B

Initiation Date: 12/03/07

Facility No. and Name: B1241 New LN2 Plant	Task No.: 1059	Order No.: NNL 08AA92T
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Title:
Construction of new LN2 Plant

Description:
Provide Contract Inspection services in accordance with the attached Menu of services, Contract Specifications, LMS procedures, and the Construction Management and Inspection Manuals.
Tasks are identified within government Maximo and Integrator systems as active subcontract orders to the ROME contract. These orders will be published and sent weekly to the contractor. Contractor shall monitor active subcontracts for schedule and onsite activities

this task is to be incrementally funded

CURRENT ORDER VALUE: \$100,000.00
Scheduled Completion 12/3/2008

Continue on separate sheet if necessary.

Deliverables: daily logs, test reports, certifications, Final Acceptance reports

Requester Organizational Code 402A	Accounting Code	Change in Scope			
Schedule & Resources	Original	Rev. 1	Rev. 2	Rev. 3	Rev. 4
Purchase Request No.	4200233860	254243			
Required Completion Date	12/03/08	1-30-09			
Estimated Cost	\$28,037.00	51401			
Fee	\$1,962.59	3597			
Total Task Order Funding	\$30,000.00	55000			

APPROVALS			Change in Scope Concurrences			
			Rev. 1	Rev. 2	Rev. 3	Rev. 4
Task Monitor	Ext.	Date				
			6-10-08			
Authorized For Contract Performance	COTR	2-8-08 Date	745			
			6-10-08			
Accepted By	Cont. Mgr.	2/8/08 Date	2045			

TASK ORDER CLOSEOUT					
Estimated Cost	Task Order Closeout Date	Services Completion Date			
Expended Cost	Project Mgr.	Date			
Fee	Contract Mgr.	Date			
Total T.O. Dollars	COTR	Date			

Research Facilities Services Competency

Construction Phase Support Task Order

CLIN 01 - Cost Plus Fixed Fee

Contract No.: NNL04AA05B

Initiation Date: 08/02/06

Facility No. and Name:

Various

Task No.:

1044

Order No.:

NNL 04AC12T

Title:

Maintenance Quality Assurance Evaluations

Description:

Provide Contract Inspections and Quality Assurance Evaluations on ROME Contract In House Trouble Calls, Preventative Maintenance Tasks and small IDIQ tasks. Services shall be in accordance with the attached Menu of services, Contract Specifications, LMS procedures, and the Construction Management and Inspection Manuals.




The government will supply the contractor with a random selection of TC's, PM's and IDIQ's for the contractor to review and rate in accordance with the ROME evaluation sheets and using the ROME contract specification/requirements rate the ROME contractor performance on the selected tasks. Evaluation sheets and summary shall be submitted to the IQA COTR monthly and a copy to the government Maintenance Deputy COTR.

Continue on separate sheet if necessary.

Deliverables:

Requester Organizational Code	Accounting Code	Change in Scope			
RG					
Schedule & Resources	Original	Rev. 1	Rev. 2	Rev. 3	Rev. 4
Purchase Request No.	4200165181	118323	216281	-	255478
Required Completion Date	11/30/06	5/01/07	4-30-08	6-30-08	12/31/08
Estimated Cost	\$37,383.00	74,766	104672	104672	185596
Fee	\$2,617.00	5,234	7328	7328	12993
Total Task Order Funding	\$40,000.00	80,000	112,000	112,000	198,589

APPROVALS

		Change in Scope Concurrences			
		Rev. 1	Rev. 2	Rev. 3	Rev. 4
	Task Monitor				
	Ext. Date	2-5-07	8-15-07	3-21-08	6-12-08
	COTR	7-13-06	KFD	760	760
	Date	JMS 25.07	KFD	JMS	JMS
	Cont. Mgr.	7/28/07	JMS	3-21-08	6-12-08
	Date	JMS 2/5/07	BLS	JMS	JMS
	Accepted By				

TASK ORDER CLOSEOUT

Estimated Cost	Task Order Closeout Date	Services Completion Date
Expended Cost	Project Mgr.	Date
Fee	Contract Mgr.	Date
Total T.O. Dollars	COTR	Date

Construction Menu of Services

(Complete this form and deliver or mail to IQA COTR at MS 447.)

Date: 05/11/04	Task No.: 1044	Order No.: NNL 04AC12T
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Contract Data

Contract No.: NNL04AA038	Project Title: Trouble Call, PM and IDIQ Quality Assurance
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Performance Period (days): 270	Award Amount: \$0	COTR/PM: [REDACTED]	Contractor: JS
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Note: Planning inspection services will be an important element of the inspection strategy. Inspectors are required to have an inspection plan for each project. (In addition to specifications and drawings). As PM of this project you and your supporting team (electrical, mechanical, structural) are requested to list significant areas of inspection. These areas are what you feel are critical in the construction process. Please list below any other significant inspection points that should be performed, witnessed, verified, and recorded.

Construction Services

Pre-Award/Pre-Construction Services

- Spec Reviews
- Attend Pre-Construction Conference
- Site Visits (Job Show)
- Escort to Safety Briefing

Site Coordination/Facilitation

- Utility Outages
- Security Escort
- Obtain Permits
- Overtime

Technical Inspection Services

- | | |
|---|---|
| <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Quality Assurance/Inspection Plan <input checked="" type="checkbox"/> Verification of Contract Compliance (QA/QC) <input type="checkbox"/> Equipment Documentation <input checked="" type="checkbox"/> QA/QC Documentation <input type="checkbox"/> Review Submittals <input type="checkbox"/> Special Inspections <input type="checkbox"/> Technical Consultation <input type="checkbox"/> Final Inspection/Contract Closeout | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Attend Weekly/Bi-weekly Progress Meetings <input type="checkbox"/> Provide Drafting Services or As-Built Revisions <input type="checkbox"/> Develop Contractor Request for Information (RFI) Responses <input type="checkbox"/> Develop RFC Documents <input type="checkbox"/> Document Potential Claims <input type="checkbox"/> Review Contractor Progress Payment Requests <input type="checkbox"/> Review and Verify Contractor As-Built Submittals |
|---|---|

OTHER COMMENTS:

X-ray requirements (approximate number of welded joints and size) _____

Configuration Control Requirements _____
(if yes, approximate number of drawings) _____

Overtime and/or shift change requirement; e.g., utility outages _____

Percent equipment cost vs. total contract cost _____ %

Projected date of off-site inspections (shop visits) _____

No. of welded joints and size
<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Yes <input type="checkbox"/> No

OTHER SIGNIFICANT INSPECTION POINTS:



Trouble Calls for May 2008

Work Order	Description	Location	Asset	Woeq1	Status	Scheduled Start	Priority	Site
515124	a c down	1213-151	PKG00366	420157	COMP	5/5/2008 8:56	5	LARC
515158	Calibrate Alarm Temp Sensor	1251-222			COMP	5/5/2008 14:15	5	LARC
515201	#1 125 reducer steam trap outlet valve leaking	1215-106	FACPIPE		COMP	5/5/2008 9:51	3	LARC
515270	Oil sample test needed.	1251A+FAC			COMP	5/5/2008 15:17	3	LARC
515280	#1 liebert unit in alarm	1201-112	FACHVAC		COMP	5/6/2008 6:21	5	LARC
515365	Laser align shafts MTR01575.	1222-111	MTR01575		COMP	5/6/2008 12:43	5	LARC
515472	Magnetic strip is missing off of handicapped doo	1152+FAC	FACSTRUC		COMP	5/7/2008 12:56	5	LARC
515544	Wrong oil in vacuum pump	1275-115	PMP01733	690479	COMP	5/8/2008 10:15	5	LARC
515585	Inspect pipe plugs on the 350 PSI steam system	1215+FAC	FACPIPE		COMP	5/8/2008 13:17	4	LARC
515607	A C unit is going in and out of alarm	1202-236			COMP	5/12/2008 13:55	5	LARC
525355	Too hot in computer room	1250-124E			COMP	5/12/2008 7:09	5	LARC
525691	Water leak	1212+FAC	FACPIPE		COMP	5/12/2008 13:51	5	LARC
526508	Lights out in ceiling	1222-115	FACLIGHT		COMP	5/13/2008 9:48	5	LARC
526881	Ice machine will not come on ICE00007	1213-126	ICE00007	750405	COMP	5/16/2008 11:08	5	LARC
526888	Steam line drain fitting leaking	1215-106	FACPIPE		COMP	5/16/2008 11:18	3	LARC
528405	ASSIGN TO LUKEY REPAIR LIGHTS IN ROOM 218	1225-218	FACLIGHT		COMP	5/19/2008 11:24	5	LARC
528441	Mold on register in Room 101 needs to be clean	1212C-101			COMP	5/19/2008 8:45	3	LARC
528622	Install calibrated gages and have flex hose tested	822-10	FACPIPE		COMP	5/21/2008 9:20	3	LARC
528715	A c inoperative PKG00111 entire bldg	1237B+FAC	PKG00111	930021	COMP	5/22/2008 8:31	5	LARC
528735					COMP	5/22/2008 10:45	5	LARC
531684	A C not working in B1225 Rooms 214 223	1225-214			COMP	5/27/2008 7:48	5	LARC
531817	Replace lights	1251+FAC	FACLIGHT		COMP	5/27/2008 10:51	5	LARC
531890	B 1208 steam regulator sticking	822-10			COMP	5/27/2008 14:04	3	LARC
531908	Bearing problem in A C unit	1230B-294			COMP	5/28/2008 7:29	5	LARC

IDIQ's for May 2008

Work Order	Description	Location	Asset	Woeq1	Status	Scheduled Start	Priority	Site
509284	PM #1 Worthington vacuum pump.	1251-160	PMP00374	500058	WAPPR	5/2/2008 8:14	3	LARC
509291	Relocate Condensate Vent Line	1221C+FAC			WAPPR		3	LARC
509292	RFC 01 to AN00767 Additional Funding Required	1250-181			INPRG	5/20/2008 0:00		LARC
515246	N Install 230V transformer	1230-141A	FACELECT		WAPPR			LARC
515277	RCM Develop Procedure for TDT Blade Inspections	648+FAC			APPR	5/6/2008 6:12	3	LARC
515287	N attach power to fork lift battery charger	1250+FAC			WAPPR		3	LARC
515305	Need assistance with excess of B1225 SUNDSTRAND SE	1225-106	SEQ00177	440066	INPRG	5/22/2008 0:00		LARC
515420	Modify GWLTT lift and assist installing GWLTT	648+FAC			APPR	5/23/2008 0:00		LARC
515457	MandRE to support runway light repair	1244+FAC			CONTRSCH	5/7/2008 11:44	3	LARC
526098	RFC 01 to AN00836 Additional Funding Required	1148-104			APPR	5/13/2008 0:00		LARC
528526	Water valve 3209W leaking through the seat	1236-109B	VLV01160	0593209W	INPRG	5/20/2008 8:43		LARC
528528	cooling coil vacuum valve 3800V inop	1236-ROOF	ACT00206	0593800V	APPR	5/20/2008 8:52	3	LARC
528542	RFC 01 to AM03328 Additional Funding Required	1275-102A			APPR	5/26/2008 0:00		LARC
528556	Repair Phase detector. MandRE.	1233+FAC	FACELECT		APPR	5/20/2008 11:38	4	LARC
528596	Write job plans	1236-10			WAPPR	5/20/2008 20:18	3	LARC
528597	Write Job Plans	1236+FAC			WAPPR	5/20/2008 20:24	3	LARC
528613	Generate PM	1215+FAC			APPR	5/21/2008 7:32	3	LARC
528692	Generate PM	1212C-106			WAPPR	5/22/2008 5:14	3	LARC
532770	REPLACE LINER PANEL 167	1236+FAC	NONE		APPR	5/30/2008 14:28	3	LARC

STATEMENT OF WORK:

The Contractor shall provide Quality Assurance Evaluation (QAE) services for maintenance, repair and construction activities performed on LaRC facilities. Maintenance, repair and construction activities include, management, trouble calls (TC's), recurring maintenance work(PMs), and non-recurring(IQ) work performed by the Research Operations, maintenance and Engineering (ROME) Contractor and his Subcontractors. The Contractor shall inspect, check and witness, interview customers collect performance metric data, and prepare documentation and reports and participate in performance review meetings to support the Government in it's evaluation of the contractor's performance. The evaluation shall include documentation demonstrating the contractor's compliance to the ROME contract requirements.

The Contractor shall provide QAE services in accordance with the Quality Assurance Plan for ROME contract At Langley Research Center and submit the QA plan work sheets and analysis to the ROME Deputy COTR monthly.

The Contractor shall meet with the ROME Maintenance Deputy Contracting Officer's Technical Representative and the Government QA Program Lead on a monthly basis to discuss metrics data, documentation and reports, and to resolve any problems identified.

The government will provide the contractor with a monthly list of TCs, PMs and IQ tasks that shall be evaluated and submitted to the government.

QA SOW

Research Facilities Services Competency

Construction Phase Support Task Order

CLIN 01 - Cost Plus Fixed Fee

Contract No.: NNLO4AA05B

Initiation Date: 09/13/05

Facility No. and Name: 1236 National Transonic Facility	Task No.: 1050	Order No.: NNL 04AC127
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Title:
NTF Cooling Coil Bundle Replacement Project

Description:

Provide IQA services for subject project and per attached Langley form 251, procurement specification, and drawings. IQA will coordinate with ROME construction management and the NASA Contracting Officer Technical Representative/Project Manager to execute the required inspections of hardware, documentation, and testing. This project is primarily one of replacing 3 suspect water/air heat exchanger (cooling coil) bundles located upstream of the NTF test section as well as procuring a spare bundle from the original equipment vendor (GEA Luftkuhler of Bochum, Germany). The cooling coils bundles are unique items specifically designed for the NTF and the handling rig and process plan to execute the replacement will be unique since this has never been done before. Related systems used to monitor cooling coil performance and to drain and dry the cooling coils prior to NTF cryogenic operations will be added or modified as part of this project. IQA shall be tasked with participating in the ROME design review for the Cooling Coil bundles (1 review) and handling rig and process plan (2 reviews) as part of the ROME Design, Furnish, Install Contract. IQA shall be tasked with inspecting and witnessing specific portions of cooling coil bundle and handling rig fabrication and testing prior to delivery as well as the onsite bundle removal and replacement process as specified in attached Inspection & Surveillance list and Weld list.

Continue on separate sheet if necessary.

Deliverables: Reports of inspection/quality assurance

Requester Organizational Code	Accounting Code	Change in Scope			
D402					
Schedule & Resources	Original	Rev. 1	Rev. 2	Rev. 3	Rev. 4
Purchase Request No.	4200154718	—			
Required Completion Date	2-22-07	8-31-07	6-30-07		
Estimated Cost	27,753	27,753	27,753		
Fee	1,943	1,943	1,943		
Total Task Order Funding	29,696	29,696	29,696		

APPROVALS		Change in Scope Concurrences			
		Rev. 1	Rev. 2	Rev. 3	Rev. 4
	47238 4-20-06				
Task Monitor	Ext. Date				
	COTR 4-20-06	3-2-07 740	8-30-07 740		
Authorized For Contract Performance	Date				
	Cont. Mgr. 4-20-06	3-2-07 SNE	8-30-07 SNE		
Accepted By	Date				

TASK ORDER CLOSEOUT			
Estimated Cost	29,696	Task Order Closeout Date	3-21-08
Expended Cost	27,427	Project Mgr.	Date 3-21-08
Fee	1,920	Contract Mgr.	Date 3/24/08
Total T.O. Dollars	29,347	COTR	Date 3/25/08

Construction Menu of Services

(Complete this form and deliver or mail to IQA COTR at MS 447.)

Date: 09/12/05 Task No.: Order No.: NNL

Contract Data

Contract No.: Project Title:
NTF Cooling Coil Replacment

Performance Period (days): Award Amount: COTR/PM: Contractor:
140 onsite 380 total [REDACTED] ROME

Note: Planning inspection services will be an important element of the inspection strategy. Inspectors are required to have an inspection plan for each project. (In addition to specifications and drawings). As PM of this project you and your supporting team (electrical, mechanical, structural) are requested to list significant areas of inspection. These areas are what you feel are critical in the construction process. Please list below any other significant inspection points that should be performed, witnessed, verified, and recorded.

Construction Services

Pre-Award/Pre-Construction Services

- Spec Reviews
- Site Visits (Job Show)
- Attend Pre-Construction Conference
- Escort to Safety Briefing

Site Coordination/Facilitation

- Utility Outages
- Obtain Permits
- Security Escort
- Overtime

Technical Inspection Services

- Quality Assurance/Inspection Plan
- Verification of Contract Compliance (QA/QC)
- Equipment Documentation
- QA/QC Documentation
- Review Submittals
- Special Inspections
- Technical Consultation
- Final Inspection/Contract Closeout
- Attend Weekly/Bi-weekly Progress Meetings
- Provide Drafting Services or As-Built Revisions
- Develop Contractor Request for Information (RFI) Responses
- Develop RFC Documents
- Document Potential Claims
- Review Contractor Progress Payment Requests
- Review and Verify Contractor As-Built Submittals

OTHER COMMENTS:

X-ray requirements (approximate number of welded joints and size) _____

Configuration Control Requirements _____
 (if yes, approximate number of drawings) _____

Overtime and/or shift change requirement; e.g., utility outages _____

Percent equipment cost vs. total contract cost _____

Projected date of off-site inspections (shop visits) _____

No. of welded joints and size see attached list of welds	
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
50	%
Nov 2005 to Dec 2006	

OTHER SIGNIFICANT INSPECTION POINTS:

See attached list titled "NTF Cooling Coil Project - IQA Inspections/Surveillance" dated 9/12/05

See attached list titled "NTF Cooling Coil Project - Approximate Number & Size of Welds by Pipe Spec" dated 9/12/05