

RAPID RESPONSE SPACE WORKS (RRSW) Standup and Operate Task Order

J.1(a) attachment 2

28 January 2010

ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES

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

1

1. DATE OF ORDER TBD		2. CONTRACT NO. (If any) TBD		6. SHIP TO:	
3. ORDER NO. TBD		4. REQUISITION/REFERENCE NO. TBD		a. NAME OF CONSIGNEE Patricia B. Hudson	
5. ISSUING OFFICE (Address correspondence to) NASA Ames Research Center				b. STREET ADDRESS NASA Ames Research Center, M/S 241-1	
7. TO:		c. CITY Moffett Field	d. STATE CA	e. ZIP CODE 94035-1000	
a. NAME OF CONTRACTOR				f. SHIP VIA FOB Destination	
b. COMPANY NAME				8. TYPE OF ORDER	
c. STREET ADDRESS				<input checked="" type="checkbox"/> a. PURCHASE	<input 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.
d. CITY		e. STATE	f. ZIP CODE	REF 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.	
9. ACCOUNTING AND APPROPRIATION DATA				10. REQUISITIONING OFFICE	
11. BUSINESS CLASSIFICATION (Check appropriate box(es))					12. F.O.B. POINT
<input type="checkbox"/> a. SMALL	<input type="checkbox"/> b. OTHER THAN SMALL	<input type="checkbox"/> c. DISADVANTAGED	<input type="checkbox"/> g. SERVICE-DISABLED VETERAN-OWNED		
<input type="checkbox"/> d. WOMEN-OWNED	<input type="checkbox"/> e. HUBZone	<input type="checkbox"/> f. EMERGING SMALL BUSINESS			
13. PLACE OF		14. GOVERNMENT B/L NO.	15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)	16. DISCOUNT TERMS	
a. INSPECTION	b. ACCEPTANCE				

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)
	<p>Rapid Response Space Works</p> <p>Standup and Operate Task Order</p> <p>The Contractor shall furnish all labor, supplies, materials, travel, other direct costs, and fees, necessary to accomplish the requirements contained in the attached Task Order.</p>					

SEE BILLING INSTRUCTIONS ON REVERSE	18. SHIPPING POINT	19. GROSS SHIPPING WEIGHT	20. INVOICE NO.		17(h) TOT. (Cont. pages)
	21. MAIL INVOICE TO:				
	a. NAME				17(i) GRAND TOTAL
	b. STREET ADDRESS (or P.O. Box)				
c. CITY		d. STATE	e. ZIP CODE		

22. UNITED STATES OF AMERICA BY (Signature)

23. NAME (Typed)
Patricia B. Hudson
TITLE: CONTRACTING/ORDERING OFFICER

1. SUPPLIES/SERVICES TO BE PROVIDED

This is a Task Order, entitled “Standup and Operate” under the basic NASA Contract, TBD, for Rapid Response Space Works (RRSW).

ITEM	SUPPLIES/SERVICES	QTY	UNIT	TOTAL COST
01	Standup and Operate the RRSW. The Contractor shall furnish all labor, supplies, materials, travel, other direct costs, and fees, necessary to accomplish the requirements contained in the attached SOW..	1	Job	

(End of Clause)

2. NFS 1852.232-81 CONTRACT FUNDING (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 \$_____. This allotment is for costs and covers the following estimated period of performance: _____.

(b) An additional amount of \$_____ is obligated under this contract for payment of fee.

SUMMARY OF CONTRACT FUNDING	FROM	BY	TO
Cost	TBD	TBD	TBD
Fixed Fee	TBD	TBD	TBD
Total Cost Plus Fixed Fee	TBD	TBD	TBD

(End of Clause)

3. STATEMENT OF WORK

The Contractor shall furnish all labor, supplies, materials, travel, other direct costs, and fees, necessary to accomplish the requirements contained in Attachment 1, Task Order Statement of Work, entitled "Initial Standup and Operate Task Order."

(End of Clause)

4. PERIOD OF PERFORMANCE

The period of performance for this task order is as follows:

ITEM	SUPPLIES/SERVICES	QTY	DELIVERY DATE
01	Standup and Operate the RRSW	1	36 months

(End of Clause)

DRAFT

ATTACHMENT 1:

STATEMENT OF WORK

FOR THE

**RAPID RESPONSE SPACE WORKS (RRSW)
STANDUP AND OPERATE TASK ORDER**

DRAFT

CONTENTS

1	Scope	7
1.1	Objective	7
2	Applicable Documents	7
3	Requirements	7
3.1	Systems Engineering & Integration (SE&I)	8
3.2	Operations	9
3.3	Integrated Logistics Support (ILS)	9
3.4	Assembly, Integration, and Test (AI&T)	10
3.5	Space Vehicle and Ground System Procurement.....	11
3.6	Facilities.....	11
4	Programmatic Tasks	11
4.1	Integrated Product Team.....	11
4.2	Kick-Off Meeting	11
4.3	Technical Interchange Meetings.....	11
4.4	Customer Communications	11
4.5	Task Closeout Meeting	11
4.6	Cost Performance	12
4.7	Contractor Integrated Performance Management.....	12
4.8	Integrated Master Schedule (IMS).....	12
4.9	Integrated Baseline Reviews (IBRs).....	12
4.10	Risk Management	12
4.11	Quality Assurance	12
4.12	Work Breakdown Structure (WBS)	13
4.13	Security Program	13
4.14	Training Program	13
4.15	Information Assurance	13
5	Deliverables	13
5.1	Period of Performance	13
5.2	Documentation	14
6	Cost Estimate	14

STATEMENT OF WORK

Rapid Response Space Works (RRSW) Initial Standup

1 Scope

This Statement of Work (SOW) defines the tasks the contractor will execute to design, develop, and establish the initial capability of the Rapid Response Space Works (RRSW). This includes all planning and design efforts required create the infrastructure to operate the RRSW and execute end-to-end missions from receipt of an enabler or operational need through delivery of capability. This includes the initial infrastructure to support end-to-end mission coordination, design, development, procurement, assembly, integration, test, on-orbit support, launch support, and ground system support.

1.1 Objective

The objective of this Task Order is to design the RRSW, develop the processes to operate the RRSW, and establish the support infrastructure and systems to accomplish mission execution. This includes jointly creating and controlling the standards and interfaces necessary to provide a rapid response capability. The implementation is accomplished in a time phased approach allowing for early non-mission specific operations, having the ability to process specific missions within 24 months, having the RRSW systems verified and allowing for a growth path to increased mission capability in support of a 2015 architecture.

2 Applicable Documents

- Operationally Responsive Space (ORS) Architecture Guidebook
- DoDI 8581.1, DoD Directive Information Assurance Policy for Space Systems
- DoDI 8510.01, DoD Information Assurance Certification and Accreditation Process (DIACAP)

3 Requirements

There are major elements associated with establishing the RRSW (including but not limited to):

- design and build the capability,
- establish routine operations and maintenance,
- support user training/planning functions, and
- respond to time-critical needs.

The contractor shall provide the requisite operational expertise, engineering, technical, program management, and administrative services to design and establish the following functions in the RRSW:

- Operations & Maintenance → Includes routine operations and maintenance to achieve operational readiness as well as respond to needs from notification to on-orbit operations and disposal
- Systems Engineering → Provide necessary expertise to know and understand the full breadth of operations, sustainment, and development to execute the end-to-end mission
- Logistics → Develop and maintain ready access to mission building blocks, configuration control, and procurement

- Training → Develop and maintain an operational readiness capability
- Plans → Rapidly convert needs into an executable mission
- Developmental/Operational Test & Evaluation (DT&E/OT&E) → System operational readiness evaluations

Services shall be conducted at operating locations at Kirtland AFB, other Government locations, and/or contractors' facilities.

3.1 Systems Engineering & Integration (SE&I)

In coordination with the Government, the contractor shall provide the necessary resources to staff, manage, document and execute the following SE&I functions:

- 3.1.1 Design and develop the RRSW capability in a time phased approach (processes, facilities, tools, etc.).
 - 3.1.1.1 Report as required by the Government on trade studies, describing all technical/engineering design options considered, the choices made and each decision's impact on technical, performance, program risk, cost, and schedule.
 - 3.1.1.2 Provide status as requested by the Government to promote design corrective actions by identifying potential failure risks in order that appropriate corrective actions may be taken early to eliminate or control high risk items to improve operational readiness and reduce life cycle costs, for major interface level and for critical path items.
 - 3.1.1.3 Provide status as requested by the Government on failures that have occurred during testing, to be used as part of the overall management program to detect, isolate and correct component failures.
 - 3.1.1.4 Produce design documentation and reviews to support the contractor's time phased development of RRSW capability that meets stated performance requirements within cost (program budget), schedule (program schedule), and risk.
- 3.1.2 Develop, implement, and maintain the Government approved RRSW Systems Engineering Management Plan (SEMP), which shall include all products (procured or developed) incorporated into RRSW operations.
- 3.1.3 Develop, implement, and maintain the Government approved RRSW Risk Management Plan (RMP).
- 3.1.4 Support the development and implementation of the RRSW Mission Assurance Plan.
- 3.1.5 Support the process development for mission planning and analysis in response to launch-on-schedule and launch-on-demand operational needs.
- 3.1.6 Develop and maintain a configuration control system for the ORS capability including but not limited to architecture descriptions, standards, mission procedures, RRSW processes, interface control documents, assembly drawings, software, mission parameters, models, simulation, analyses results, and databases.
- 3.1.7 Not used.

3.2 Operations

In coordination with the Government, the contractor shall provide the necessary resources to staff, manage, document and execute the following Operations functions in support of the RRSW:

- 3.2.1 Support the design and development of the RRSW capability (processes, facilities, tools, etc.). Document the mission plans in a CONOPS, to include specifics on what the RRSW will do and why, as required. Provide status as requested by the Government on packaging concepts and processes applicable to development items in a Packing, Handling, Storage and Transportation Plan.
- 3.2.2 Define and develop end-to-end mission operations procedures from notification to early on-orbit operations.
- 3.2.3 Develop, implement and manage a Mission Assurance Plan.
- 3.2.4 Conduct mission planning and analysis in response to launch-on-schedule and launch-on-demand operational needs.
- 3.2.5 Not Used
- 3.2.6 Support operations training and development of an operational training capability.
- 3.2.7 Support exercise and wargame planning, execution and analysis.
- 3.2.8 Provide information and documentation (e.g., mission, safety, and environmental information) in support of end-to-end mission operations. The contractor shall deliver, as requested by the Government, information presented in major technical reviews, with the draft copy NLT 5 days prior to the review. Starting 120 days after award, then annually, summarize all system safety analyses and testing performed to identify system design and operation limits to preclude or minimize mishaps which could cause injury or damage.
- 3.2.9 Not Used.

3.3 Integrated Logistics Support (ILS)

In coordination with the Government, the contractor shall provide the necessary resources to staff, manage, and execute the following ILS functions in support of the RRSW:

- 3.3.1 Support the design and development of the RRSW capability (processes, facilities, tools, etc.). Provide an annual report to the Government on inventory of government-furnished/contractor-acquired material and non-expendable special tooling (including vendor tools); special test equipment; and all accessories and attachments; on both a quantitative and monetary basis segregated by categories of property.
- 3.3.2 Conduct a supportability analysis to determine required sustainment functions, such as repair, spares, inventory management, required to ensure parts availability to meet production schedules, and report as required. Develop a Government approved Integrated Logistics Support Plan that encompasses all

products (procured or developed) incorporated into RRSW operations, 60 days after award, and subsequently revised as necessary.

- 3.3.3 Support the development and implementation of the RRSW Mission Assurance Plan.
- 3.3.4 Support mission planning and analysis in response to launch-on-schedule and launch-on-demand operational needs.
- 3.3.5 Conduct commonality, supportability analysis, and trades to improve timeliness, reduce cost, improve reliability, and reduce risk. Provide status as requested by the Government on reliability growth activities, results and recommendations.
- 3.3.6 Develop and provide mission operations training capability.
- 3.3.7 Develop, implement, and manage training of RRSW functions.
- 3.3.8 Manage and procure material and equipment necessary to establish an initial capability as directed by the Government based upon requirements identified in the RRSW design process. Material or equipment procurement greater than \$1000.00 shall be an amendment to this Task Order or executed through a separate Task Order. Provide reports as required to the Government on sparing levels and critical parts required to maintain RRSW goals. Provide status as requested by the Government on warranty data to assess the effectiveness and implementation of Commercial Off the Shelf (COTS) component warranties.

3.4 Assembly, Integration, and Test (AI&T)

In coordination with the Government, the contractor shall be required to provide the necessary resources to staff and execute the following AI&T functions in support of the RRSW:

- 3.4.1 Support the design and development of the RRSW capability (processes, facilities, tools, etc.). The contractor shall verify requirements in accordance with the system specification. They shall develop a Test Plan that details all tests required to verify system and subsystem function and performance and provide test procedures and test report results for all performance, environmental, system/subsystem, integration, acceptance and end-to-end tests.
- 3.4.2 Define and develop AI&T procedures that support a responsive space end-to-end mission integration. Procedure development should include demonstrations for validation.
- 3.4.3 Support the development and implementation of the RRSW Mission Assurance Plan.
- 3.4.4 Install and checkout facility equipment (e.g., unique handling equipment, unique storage capability) necessary to operate the RRSW.
- 3.4.5 Not Used.
- 3.4.6 Not used.

- 3.4.7 Not used.
- 3.4.8 Improve the processes necessary to decrease the timeline to launch, decrease cost, increase reliability, or lower risk.
- 3.4.9 Support exercise and wargame planning, execution and analysis.
- 3.4.10 Support planning for transition of capabilities to end user operations.
- 3.4.11 Not used.

3.5 Space Vehicle and Ground System Procurement

Not used.

3.6 Facilities

The contractor shall accomplish the following facility functions:

- 3.6.1 Define facility requirements, plan and schedule facilities use, facility operation, safety, maintenance planning, and maintenance of facilities (both routine and unscheduled).
- 3.6.2 Manage day-to-day operations of government-provided facilities in a state of functional readiness unless directed to transition a particular facility to an inactive or stand down mode.
- 3.6.3 Not used.

4 Programmatic Tasks

4.1 Integrated Product Team

The contractor shall provide support to the Government led IPTs established for RRSW activities.

4.2 Kick-Off Meeting

The contractor shall host a Kick-Off Meeting to review and introduce its organization, management and technical processes, program plan and schedule, and cost, schedule, technical, requirements and risk baselines.

4.3 Technical Interchange Meetings

The contractor shall conduct and/or support Technical Interchange Meetings with the Government, potential bus, payload and/or satellite vehicle vendors and potential ground segment providers as needed to identify, resolve, and establish architecture, technical interface, assembly and integration activities/direction.

4.4 Customer Communications

The contractor shall maintain proactive, open, and responsive communication with the Government.

4.5 Task Closeout Meeting

The contractor shall conduct and/or support a Task Closeout Meeting with the Government.

4.6 Cost Performance

The contractor shall establish a program cost baseline to measure cost progress. The contractor shall provide monthly cost and performance reviews.

4.7 Contractor Integrated Performance Management

The contractor shall establish, maintain, and use an integrated performance management system in the performance of this contract. Central to this integrated system shall be an Earned Value Management System (EVMS) in accordance with NASA Federal Acquisition Regulation Supplement (NFS) 1852.234-1, NFS 1852.234-2, and the EVMS guidelines contained in ANSI/EIA-748 (<http://guidebook.dcmamail/79/EVMIG.doc>). To establish the integrated performance management system, the EVMS shall be linked to and supported by the contractor's management processes and systems to include the integrated master schedule, contract work breakdown structure, change management, material management, procurement, cost estimating, and accounting. The correlation and integration of these systems and processes shall provide for early indication of cost and schedule problems, and their relation to technical achievement.

4.8 Integrated Master Schedule (IMS)

The contractor shall develop and maintain an Integrated Master Schedule (IMS) by logically networking detailed program activities, to be delivered to the Government monthly. The schedule shall contain the planned events and milestones, accomplishments, exit criteria, and activities from contract award to the completion of the contract. The contractor shall quantify risk in hours, days, or weeks of delay and provide optimistic, pessimistic, and most likely duration for each IMS activity and event.

4.9 Integrated Baseline Reviews (IBRs)

The contractor shall engage jointly with the Government's program manager in Integrated Baseline Reviews (IBRs) to evaluate the risks inherent in the contract's planned performance measurement baseline. Initially, this shall occur as soon as feasible but not later than six months after contract award, and subsequently following all major changes to the baseline. Each IBR should verify that the contractor is using a reliable performance measurement baseline, which includes the entire contract scope of work, is consistent with contract schedule requirements, and has adequate resources assigned. Each IBR should also record any indications that effective Earned Value Management (EVM) is not being used. IBRs should also be conducted on subcontracts that meet or exceed the EVM application threshold. The prime contractor shall lead the subcontractor IBRs, with active participation by the Government. (See NFS 1852.234-2)

4.10 Risk Management

The contractor shall identify program risks and individual mitigation plans to retire risks as defined in the Risk Management Plan. The contractor shall assess program risks on an ongoing basis and evaluate risk mitigation progress monthly.

4.11 Quality Assurance

The contractor shall develop and accomplish quality assurance in accordance with the Quality Assurance Section of the RRSW SEMP.

4.12 Work Breakdown Structure (WBS)

The contractor shall develop and maintain a contract WBS to be delivered 30 days after award, and then update as required.

4.13 Security Program

Establish and implement a security program in accordance with applicable U.S. Government guidelines.

4.14 Training Program

Oversee an RRSW training program to maintain proficiency and assurance for the RRSW to conduct ORS missions.

4.15 Information Assurance

- 4.15.1 The contractor shall comply with applicable Government guidelines for Information Assurance (Ref paragraph 2).
- 4.15.2 The contractor shall provide the following documents in support of IA:
- System Security Plan (SSP), as required by the Government
 - Program Protection Implementation Plan (PPIP), delivered 120 days after award, then annually
 - IA Controls Artifacts
 - Accreditation Boundary Drawing(s)
 - System Description
 - Hardware List
 - Software List
- 4.15.3 The contractor shall support Government development of the following documentation:
- Security Test & Evaluation (ST&E) Plan
 - Actual Validation Results
- 4.15.4 Contractor shall support the Government maintenance of information in the USAF Enterprise Information Technology Data Repository (EITDR). EITDR provides automated Information Technology (IT) Portfolio Management, and other IT management processes, a common access point to gather, view, load, update, query, report and store pertinent data from disparate systems needed to complete their individual missions.

5 Deliverables

5.1 Period of Performance

The contractor shall accomplish all planning and deliver an initial capability in 36 months of the effective date of this task.

5.1.1 RRSW Design

Deliver the requisite plans, to include a generic CONOPS, to reach the RRSW mission operations goals.

5.1.2 RRSW Operations

Develop the processes to establish routine operations and maintenance, support user training/planning functions, and to respond to time-critical needs to operate the RRSW.

5.1.3 Establish Support

Establish the support infrastructure and systems, such as configuration management and ILS, to accomplish mission execution.

5.2 Documentation

The contractor shall prepare and maintain program, design, test, and other relevant documentation in accordance with its program plans and the following Data Requirements List:

Report Number	Report Title	Report Number	Report Title
015	Program Plan	023	Systems Integration/Test Plan
016	Contract Performance Report (CPR)	025	Interface Design Description
017	Cost Data Summary Report (CDSR)	027	Launch Site Procedures
018	System Engineering Management Plan (SEMP)	029	Demonstration Plan
019	System/Subsystem Specification	030	Configuration Management Plan
020	Analysis, Test, Inspection and Demonstration Plan and Verification Summary	031	Standard Operating Procedures
021	Software Product Specification		

6 Cost Estimate

The Government estimates this Task Order will require 6-10 FTEs of effort each year.