

ORS Modular Space Vehicles (MSV)

Innovation, Architecture, and Standards Task Order

J.1(a) attachment 4

28 January 2010

ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES

1

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

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, MS 241-1		
7. TO:				c. CITY Moffett Field		d. STATE CA
a. NAME OF CONTRACTOR				e. ZIP CODE 94035-1000		
b. COMPANY NAME				f. SHIP VIA FOB Destination		
c. STREET ADDRESS				8. TYPE OF ORDER		
d. CITY				<input checked="" type="checkbox"/> a. PURCHASE		<input type="checkbox"/> b. DELIVERY -- Except
e. STATE				Please furnish the following on the		for billing instructions on the reverse,
f. ZIP CODE				terms and conditions specified on		this delivery order is subject to
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
<input type="checkbox"/> d. WOMEN-OWNED		<input type="checkbox"/> e. HUBZone		<input type="checkbox"/> f. EMERGING SMALL BUSINESS		<input type="checkbox"/> VETERAN-OWNED

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.	SUPPLIES OR SERVICES	QUANTITY ORDERED	UNIT	UNIT PRICE	AMOUNT	QUANTITY ACCEPTED
	<p>Modular Space Vehicle</p> <p>Innovation, Architecture, and Standards 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

1. SUPPLIES/SERVICES TO BE PROVIDED

This is a Task Order, entitled "Innovation, Architecture, and Standards," under the basic NASA Contract, TBD, for Modular Space Vehicle (MSV).

ITEM	SUPPLIES/SERVICES	QTY	UNIT	TOTAL COST
01	Innovation, Architecture and Standards for the ORS Modular Space Vehicle. 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 "Innovation, Architecture, and Standards."

(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	Innovation, Architecture and Standards for the ORS Modular Space Vehicles		60 months

(End of Clause)

ATTACHMENT 1

ORS MODULAR SPACE VEHICLE (MSV) INNOVATION, ARCHITECTURE, AND STANDARDS TASK ORDER STATEMENT OF WORK

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STATEMENT OF WORK

Innovation, Architecture, and Standards

1 Modular Space Vehicles Innovation, Architecture, and Standards Support

1.1 Scope

This Statement of Work (SOW) delineates the tasks each contractor shall accomplish to support the development of the ORS modular space vehicle architecture to include support for the standards development for the ORS architecture, the establishment of operations within the Rapid Response Space Works (RRSW), and the support for Government requested development of concepts, innovative ideas, trade studies, and architecture development options through white papers and proposals.

1.2 Objective

The objective of this task order is to provide support to the Government in the areas of architecture and standards development and provide innovative ideas and concepts to help enhance and mature the ORS architecture.

2 Documents

- Operationally Responsive Space (ORS) Architecture Guidebook

3 Requirements

3.1 Integrated Product Team (IPT)

The contractor shall provide support to Government's Systems Engineering Integrated Product Team (SEIPT).

3.2 Innovation

- 3.2.1 The contractor shall identify and assess utility for new concepts and mission capabilities (current and future) as potential insertions to ORS space vehicle architectures.
- 3.2.2 The contractor shall recommend and support assessment of innovative solutions to address capability gaps identified in ORS enabler roadmaps.
- 3.2.3 The contractor shall recommend and assess concepts and solutions that support responding to time critical JFC needs.

3.3 Architecture and Standards

- 3.3.1 The contractor shall support RRSW Systems Engineering and Integration (SE&I) function in evolving an open and modular architecture for ORS.
- 3.3.2 The contractor shall recommend space vehicle and associated RRSW architectural modifications (e.g. levels of modularity or identification of key interfaces) for improvements that include but are not limited to the following:
 - Shorten response timelines
 - Provide appropriate scalability

- Provide appropriate reconfigurability
- Reduce life cycle costs
- Increase reliability
- Accommodate changing technology
- Facilitate integration with other systems
- Control required interoperability and intra-operability
- Improve transportability
- Enhance market strategies
- Improve security/information assurance (IA) strategies
- Partition proprietary hardware and/or software
- Facilitate use of commercial products from multiple sources both in the initial design and in future enhancements
- Enable technology insertion as currently available commercial products mature and new commercial products become available in the future
- Allow continued access to technologies and products supported by many suppliers (a broad industrial base which does not restrict available sources to the detriment of competition)

3.3.3 The contractor shall identify open standards for adoption or adaptation toward defining key interfaces using the following priority:

- Widely accepted; non-proprietary standards
- Widely accepted; proprietary standards
- Government standards

3.4 Metric Development

The contractor shall develop metrics for measuring the affectivity of recommended innovations, architectural modifications and/or standards implementations.

3.5 Support to Mission Development

3.5.1 The contractor shall support mission space vehicle developers and the RRSW SE&I for implementing and demonstrating approved innovations, architectural modifications and/or new standards.

3.5.2 The contractor shall analyze mission space vehicle developers' recommendations for innovations, architectural modifications and/or new standards.

3.5.3 The contractor shall support incorporation of developed metrics for measuring the affectivity of implemented innovations, architectural modifications and/or standards implementations.

3.5.4 The contractor shall support technical reviews for mission and space vehicle developments.

3.6 Analyze Findings

The contractor shall conduct and analyze findings for market and research studies as required.

4 Programmatic Tasks

4.1 Integrated Product Team (IPT)

The contractor shall provide support to IPTs established to define integration, test, and processes required for RRSW AI&T activities.

4.2 Kick-Off Meeting

The contractor shall support a Kick-Off Meeting to review management and technical processes, program plan, schedule, requirements and risks.

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. Regular communication shall include support of Programmatic and Technical Interchanges taking the form of recurring teleconferences. In person reviews at the customer location or contractors' facilities will be performed as required.

4.5 Cost Performance

The contractor shall establish a program cost baseline to measure cost progress.

5 Deliverables

5.1 Period of Performance

The period of performance for this effort is anticipated as 60 months from the effective date of this task order.

5.2 Documentation

The contractor shall deliver the documentation in accordance with the following Data Requirements List:

Report Number	Report Title	Report Number	Report Title
001	Initial Financial Management Report (NF 533Q)	007	New Technology Report
002	Monthly Financial Management Report (NF 533M)	009	Non-Disclosure Agreements

6 Cost Estimate

The Government estimates this Task Order will require each MSV contractor to support a 2-day quarterly meeting, including preparation time, at locations to include Kirtland AFB and/or NASA Ames, with 1-2 employees.