

## **Request for Information (RFI)**

### **Commercial Capability to Support Mission Integration and Operations for International Space Station Research**

This is a Request for Information (RFI) only and does not constitute a commitment, implied or otherwise, that the National Aeronautics and Space Administration (NASA) will take procurement action in this matter. Further, neither NASA nor the Government will be responsible for any cost incurred in furnishing this information.

#### **Introduction:**

This RFI is being used to gather market research for NASA to make decisions regarding the capability of a commercial offeror or offerors to provide turn-key services for the mission integration, operations development, and real-time support for research on the ISS. NASA will use the results of this RFI to guide future solicitation offers for provision of Mission Integration & Operations (MI&O) support for specific research opportunities. The Offeror will bear total responsibility for meeting the safety, interface, operations and mission success requirements levied for each experiment. NASA is interested in commercial companies ideas as they relate to utilizing different approaches to payload MI&O that are more efficient and conducive to commercial research.

No solicitation exists; therefore, do not request a copy of the solicitation. If a solicitation is released it will be synopsisized in FedBizOpps and on the NASA Acquisition Internet Service. It is the potential offeror's responsibility to monitor these sites for the release of any solicitation or synopsis.

#### **Commencement of Service:**

NASA is planning to utilize these services through 2024 and seeks information on when the Offeror can begin turn-key services.

#### **Funds Available to Procure the Service:**

NASA's budget includes these functions and funds are available to implement this capability.

#### **Specific Functions and Capabilities Required for this Service:**

End-to-End Mission Integration and Operations in support of Research Objectives for the Principal Investigators, to include:

- Science definition maturation and integration of multiple research objectives
- Research integration services

- Small experiment unique hardware development and/or modification
- Experiment specific consumables or limited life items
- Preparation and submission of documentation for approval through the appropriate institutional review board (IRB) and/or research ethics board (REB) such as the Institutional Animal Care and Use Committee (IACUC) processes for rodent research
- Payload hardware integration services
- Payload software integration services
- Safety integration/data package development and support services
- Payload verification and validation
- Ground testing of hardware as needed and operation of ground truth studies to support on orbit experiments
- Certification of Flight Readiness services
- Payload manifest integration services
- Payload delivery and launch vehicle integration services
- Payload operational product development preparation services
- Ground systems product development services
- Crew training services (including hardware familiarization to other organizations as required)
- Payload preflight preparation
- Real time flight and ground control operations, and support services to include real time payload monitoring (data, video, etc) and payload anomaly resolution
- Post flight payload-processing services

**Operational Concepts for Utilizing this Service:**

It is envisioned that a commercial service provider or providers would be chosen by the International Space Station (ISS) Research Integration Office to implement an efficient

turn-key approach for MI&O to support selected NASA and National Lab payloads to be executed on the ISS. Where necessary, NASA would loan government hardware specifically designed to execute the research to the commercial MI&O provider for the duration of the investigation if the hardware exists. NASA facilities that have unique capability to support ISS interface development and integration functions can also be made available and used for integration, verification, or validation of the experiments via Space Act Agreements. The specific level of support the Principal Investigators require would be based on their current knowledge of the ISS environment and integration process and the complexity of the research needs. NASA will define the safety, interface, operations, and mission success requirements for each experiment. Mission success requirements will be determined on an experiment-by-experiment basis with the sponsoring organization and will be included in the requirements provided by NASA. The Offeror will bear total responsibility for meeting the safety, interface, operations and mission success requirements levied for each experiment and provide a statement of certification required to meet the ISS Program CoFR Requirements prior to turn over for launch site processing.

### **Acquisition Terms and Conditions:**

Responders are invited to provide suggestions on what terms and conditions are beneficial for industry and NASA for this service (to include existing contracts that could be utilized to implement these services).

#### **Specific Request:**

- Provide a high level Concept of Operations for a typical mission cycle.
- Identify any barriers to market entry including minimum contract value, technical constraints, and minimum period of performance in regards to the ISS life cycle ending 2024.
- Describe and provide rationale for the desired type of pricing in a fixed price service contract. Address any known or potential risks associated with your recommended arrangement and provide any appropriate mitigation techniques.
- Provide recommendations for commercial service contract terms and conditions.
- Provide recommendations for the minimum dollar amount or minimum number of payloads supported per year of IDIQ work for a multi-vendor contract.
- Suggest ways NASA can incentivize a service provider to provide safe, cost effective, and reliable MI&O services.
- Describe your preferred contract type with rationale.

- Specify any government furnished equipment, facilities, and/or services that would be needed by the offeror to support the MI&O functions defined in this RFI.

### **Company Information:**

- Company name, point of contact name, phone number, e-mail address.
- Major development activities underway related to commercial support to NASA.
- ~~Provide sufficient information to determine if your company qualifies as a United States commercial provider of space transportation services as defined in Public Law 105-303, Commercial Space Act of 1998, meets the U.S. National Space Transportation Policy of 2004, and the Iran-Syria Non-Proliferation Act.~~
- DCAA accepted cost accounting/purchasing system.

### **Response Preparation and Transmittal:**

This is a request for information only. It is not a procurement, commitment to procure these services, or request for proposals. NASA will not reimburse any costs incurred for preparation or submission of information in response to this RFI.

NASA reserves the right to share all information received in response to this RFI throughout NASA and to use all information submitted in response to this RFI in NASA's formulation of one or more solicitations seeking competitive proposals on contracts for or related to the requirements described herein. NASA does not wish to receive any competition sensitive data that requires protection. However, if it is necessary to submit competition sensitive data to answer any of the questions in this RFI, that data should be clearly marked as sensitive. Although information contained herein represents current program content and acquisition planning, it is subject to change.

Questions and responses shall reference this RFI. Interested offerors/vendors having the specialized capabilities to provide these services should submit a capability statement of 7 single-sided pages or less plus cover page indicating the ability to perform all aspects of the effort described herein.

### **Point of Contact:**

Questions concerning this RFI shall be submitted via email to **Miyoshi Thompson and miyoshi.thompson-1@nasa.gov**. Electronic submission of the responses is due close of business **16 December 2015**.