

## **JUSTIFICATION FOR OTHER THAN FULL AND OPEN COMPETITION**

(In accordance with the Federal Acquisition Regulation (FAR) Part 6.3- Other than Full and Open Competition)

### **1. This document is a justification for other than full and open competition prepared by NASA's Goddard Space Flight Center/Wallops Flight Facility (NASA's GSFC/WFF):**

NASA's GSFC/WFF proposes to extend the current indefinite delivery, indefinite quantity (IDIQ) task order contract with the Virginia Commercial Space Flight Authority (VCSFA) operating under the name Mid-Atlantic Regional Spaceport (MARS) for launch site services supporting missions conducted from GSFC's WFF. This document justifies the determination for using other than full and open competition.

### **2. The nature and/or description of the action being approved:**

The WFF Launch Range is NASA's only NASA-owned launch range, and is managed by GSFC/WFF. It supports NASA space operations, science, and technology research programs. The WFF Launch Range also supports launch operations sponsored by other Government agencies, commercial industry, and educational institutions. Among the services provided by GSFC/WFF to NASA and its partners are mission management, range safety, tracking and data services, launch vehicle and spacecraft processing, and launch pad services. Historically, the complete spectrum of launch range services offered at the WFF Launch Range has been provided by NASA and its contractors using NASA-owned facilities at WFF. However, since 2004 the evolution of multiple large suborbital and small/medium class orbital launch vehicle developments have created new requirements for launch infrastructure beyond the existing NASA-owned capabilities at WFF.

The VCSFA is a non-profit Government entity of the Commonwealth of Virginia that receives base-level funding from the State. In 1997, VCSFA and NASA entered into the Reimbursable Space Act Agreement (including the Facilities and Access Support Sub-agreement (FASS)), which enabled VCSFA to carry out launch range infrastructure improvements and provide launch services at WFF for the purposes of supporting the commercial launch industry through the provisions of the Commercial Space Launch Act. On September 10, 2003, VCSFC and NASA entered into a sole source contract NAS5-03122 for launch site services and construction supporting Government launches conducted at GSFC/WFF. On May 4, 2009, a sole source follow-on 5-year contract NNG09WA08C was awarded to the VCSFA for similar services. VCSFA currently owns two orbital launch pads and supporting equipment located at WFF, maintains significant specialized technical knowledge related to national launch system designs and processes, and maintains substantial arrangements with regional suppliers and providers of logistical services, in support of prospective VCSFA commercial and Government customers. GSFC/WFF is permitted use of VCSFA-owned launch infrastructure located at WFF under the NNG09WA08C contract cited above. To enable use of that VCSFA infrastructure in support of NASA and other federally-sponsored organizations, GSFC/WFF requires VCSFA's specialized expertise/services. The only launch pads currently at WFF suitable

for launching orbital payloads are the two VCSFA owned launch pads called Pad 0-A and Pad 0-B. Because those two launch pads are owned and operated by VCSFA, NASA will not have the ability to use either of those two launch pads for NASA-sponsored launches beyond May 3, 2014, unless the current contract is extended until the follow-on contract can be negotiated and awarded.

During review of the RFP package, the Contracting Officer determined through conversation with the VCSFA Contract Administrator that VCSFA's accounting system was currently undergoing changes. [REDACTED]

[REDACTED]

[REDACTED] VCSFA currently has auditors from Dixon, Hughes and Goodman in-house working on their new accounting system and preparing a SF 1408, Preaward Survey of Prospective Contractor-Accounting System, for self-certification. The auditors are also simultaneously working on developing/establishing new VCSFA proposal "bid" rates.

Due to the implementation of its new accounting system, VCFSA's is unable to submit a proposal in response to NASA's MARS III Request for Proposal prior to the May 3, 2014, expiration of current MARS contract, NNG09WA08C. To avoid a break in contractual services NASA will extend NNG09WA08C through November 3, 2014, under the authority provided by Procurement Information Circular (PIC) 00-22, Class Deviation – Five Year Term of Contract. PIC 00-22 authorizes contracting officers, with the approval of the procurement officer, to extend the period of performance beyond the original contract term including options one or more times up to a total of six months. The PIC provides authority for an extension in unusual circumstances when the award of a follow-on contract may be delayed.

A synopsis for the MARS III procurement was issued on January 17, 2014; and no responses were received from interested parties by the closing date of February 3. The MARS III RFP is delayed for the aforementioned reasons. The current contract provides GSFC/WFF the ability to issue Task Orders, including construction and other improvements, consisting of defined elements for individual projects. GSFC/WFF defines the technical and schedule requirements for each task. The effective ordering period of the current contract is five years and will end on May 3, 2014. This proposed extension permits NASA to continue to obtain launch services from VCSFA for the period of May 4, 2014 to November 3, 2014. The objective of this extension is to maintain the capability of GSFC/WFF to provide launch service infrastructure to safely and successfully launch small/medium class orbital launch missions for NASA: other Government organizations, and NASA's commercial partners.

### **3. Description of the supplies or services required, including an estimated value:**

*Mission Planning and Feasibilities:* VCSFA will perform feasibility studies, as requested by NASA, to assess the ability to meet launch support requirements, and estimate resource requirements to do so. VCSFA will also participate in pre-mission planning activities such as analysis, mission working groups, and other preparatory tasks necessary to adequately carry out customer requirements. VCSFA will provide documentation thereof.

*Launch Site Associated Services:* VCSFA will perform services involving activities related to the use of VCSFA-owned launch complexes. These activities may include such services as moving or assembling flight hardware, protecting hardware, supporting safety monitoring of launch site activities, providing expendable products necessary at the launch site, infrastructure improvements, and providing for access to the vehicle and spacecraft while located at the launch site. Should NASA decide to further upgrade the existing Pad 0-A or Pad 0-B to meet future NASA launch requirements, then VCSFA would perform those upgrades and such work would be funded via Task Orders on the contract extension. Should NASA decide to construct a new orbital launch pad at WFF called Pad 0-C, then NASA may elect to have VCSFA lead an initial design study of that new launch pad via a task order on the contract extension.

The estimated value for extending the current IDIQ contract is \$305,940. This estimate includes conducting studies and services at a staffing level averaging 2.75 persons via potentially one or more task orders during this 6-month extension.

### **4. Statutory authority permitting other than full and open competition:**

The statutory authority permitting other than full and open competition is 10 U.S.C. 2304(c)(1), as implemented by FAR 6.302-1, "only one responsible source and no other types of supplies or services will satisfy agency requirements."

### **5. A demonstration that the proposed contractor's unique qualifications or the nature of the acquisition requires use of the authority cited:**

The rationale supporting the use of 10 U.S.C. 2304(c)(1) is the current absence of technically acceptable alternatives to the launch capabilities available at the VCSFA.

Presently, there are only four U.S. launch sites fully capable of providing orbital and large suborbital launch services. These sites are the United States Air Force's Eastern and Western Ranges, Alaska Aerospace Development Corporation's Kodiak Launch Complex, and GSFC/WFF. This list excludes the vehicle-specific capabilities offered by Boeing's Sea Launch platform. Each of these launch sites have specific capabilities and varying abilities to accommodate the spectrum of launch customers and their requirements. Generally, the launch sites located on the western portion of the U.S. cannot provide the same mission trajectory options as those on the East Coast, because of safety considerations. For orbital missions, the only potential alternative to GSFC/WFF as a U.S.

launch site for inclined orbit missions is the USAF Eastern Range in Florida. Although GSFC/WFF and the Eastern Range can technically accommodate some of the same orbital and suborbital missions, there is invariably a technical advantage of one site over another for each given mission.

Technical and programmatic discriminators may include the maximum spacecraft weight available to a specific orbit, proximity to ground-based instrumentation stations, availability of unique launch-site equipment, safety-of-flight considerations, coordination with other missions, ability of a launch site to accommodate schedule requirements, and treaty considerations. While in many cases, only one launch site can meet the specific requirements of a given mission, the Eastern Range's strengths include the ability to support low-to-mid inclination launches for large launch vehicles. GSFC/WFF's strengths include its ability to support research and development missions, mid-to-higher inclination launches, and small/medium class launch vehicles. This unique role makes WFF the ideal site for its current mission set of suborbital and small/medium orbital missions, and perfectly leverages that experience base for missions using the Minotaur or Antares launch vehicles. This experience base, combined with the already existing infrastructure owned by NASA and VCSFA, creates a strong base for the mission set required. There is also a financial advantage to one launch site over another, as a result of the cost of transporting and maintaining mission-support equipment and personnel at a particular launch site, the need to make mission-specific improvements at a particular site, and the cost of delays due to schedule conflicts at a particular site. NASA, the Department of Defense, and other federal agencies evaluate these technical and financial considerations, and ultimately make a programmatic selection of a launch site.

Following the last launch of the Scout ELV from GSFC/WFF in 1985, NASA and other Government agencies transitioned to new, emerging launch vehicles, such as Antares, Athena, Minotaur, and the air-launched Pegasus. This new breed of launch vehicles required different ground infrastructure at supporting launch sites than was used by Scout. Necessary investments in infrastructure at GSFC/WFF were not made by NASA to maintain the capability previously provided to the Scout program. GSFC/WFF, however, has been able to continue to support some limited orbital missions using Pegasus, which does not require a ground launch complex.

In 1999, VCSFA constructed a launch complex at GSFC/WFF on Pad 0-B, and subsequently acquired ownership of a launch complex at Pad 0-A that was previously owned by a previous WFF Tenant, EER Systems, Inc., for the purposes of supporting expected commercial launch customers. These VCSFA-owned launch complexes reinstated the ground-launched orbital rocket capability at GSFC/WFF, previously available during the Scout era, and obviated the need for NASA to make investments in similar infrastructure. As a result, the only existing launch infrastructure at GSFC/WFF capable of satisfying larger launch vehicle requirements like the ones anticipated now are those maintained by VCSFA. Due to current and expected future needs to support orbital and larger suborbital missions, GSFC/WFF has determined a need to provide for the use of VCSFA-owned launch complexes, via the existing FASS, to execute Government and commercial, Government-sponsored missions.

In addition to the use of this infrastructure, NASA requires supporting specialized services associated with knowledge of particular launch vehicle designs, specialized logistical support of various launch vehicles, and specialized knowledge and capabilities associated with the use of VCSFA-owned launch infrastructure. NASA is expected to require these services in support of current Government programs/mission, including, but not limited to, the Space Launch Initiative, as well as spacecraft in support of the Space Science and Earth Science Enterprises.

**6. Description of the efforts made to ensure that offers are solicited from as many potential sources as practicable, including whether a notice was or will be publicized as required by Federal Acquisition Regulation (FAR) 5.2:**

A notice to the Federal Business Opportunities (FedBizOpps) was published on April 17, 2014, in accordance with Federal Acquisition Regulation Subpart 5.2. This posting informed potential sources of NASA's intent to award this effort to VCSFA, and provided potential sources with the opportunity to be considered based on their qualifications and capabilities. The results of this publication will be contained in Section 10 below.

**7. A determination by the contracting officer that the anticipated cost to the Government will be fair and reasonable:**

By signature on this document, the Contracting Officer determines that the anticipated cost to the Government will be fair and reasonable. During the six-month extension, VCSFA will be required to submit a proposal for only fixed-priced task orders to be evaluated and negotiated by the Government utilizing previously negotiated rates contained in the current contract. The GSFC Contracting Officer and the Contracting Officer's Representative (COR) will monitor VCSFA's performance.

**8. Description of the market survey conducted, and the results, or a statement of the reasons why market survey was not conducted:**

Due to fact that VCSFA owns and successfully operates geographically fixed launch site infrastructure at WFF that is directly related to the performance of tasks to be issued under this contract, and this infrastructure is immovable by its very nature, and that VCSFA constructed that infrastructure with non-NASA funds (i.e., VCSFA owns it), as well as the infrastructure being unique, VCSFA possesses a totally unique capability to provide this support. The COR has in-depth knowledge of the market related to this requirement and no additional market survey was performed.

**9. Other facts supporting the use of other than full and open competition:**

In anticipation of commercial launch opportunities, VCSFA has in recent years acquired specialized knowledge, experience, and unique capabilities. VCSFA maintains detailed knowledge of the technical capabilities, critical design characteristics, and technical issues associated with its infrastructure. VCSFA also maintains specialized expertise and

valuable commercial arrangements associated with ground processing and launch pad activities, not otherwise resident within GSFC or its existing support contractors. This expertise was acquired as part of VCSFA's business plan to provide value-added services in addition to NASA-supplied services, envisioned primarily in support of commercial launch customers. VCSFA has been accumulating specialized knowledge of commercial and Governmental launch vehicles designs, developing means for interfacing those vehicles to its launch infrastructure, establishing relationships with critical suppliers, and establishing an integrated series of processes with GSFC organizations to carry out an efficient set of launch-site specific services. VCSFA is the only current source sufficiently knowledgeable and with these capabilities to meet near-term mission requirements.

VCSFA has accumulated this specialized knowledge over a twenty-one year period, beginning in 1992, when key VCSFA personnel initially began planning for the establishment of a spaceport at GSFC/WFF. In order for an alternative source to be able to meet the intent of this contract, the source would be required to:

- Acquire critical launch complex design information for Pad 0-A and Pad 0-B either from VCSFA or from NASA. NASA does not currently retain a complete set of this data, and would be required to obtain it from VCSFA. Note that NASA currently does not have data rights to the design and operation of Pad 0-A or Pad 0-B, and NASA needs to seek such data rights on the current contract in the event that VCSFA would elect to abandon the use of either pad in the future, and if NASA then wanted to operate that pad directly;
- Obtain permission from VCSFA to conduct launches from Pad 0-A or 0-B;
- Use this design information to develop generic and mission-specific procedures, compliant with NASA requirements;
- Accumulate requirements from potential launch vehicle suppliers concerning requirements of the launch site provider to handle, transport, and process components and the integrated system in order to define processes for implementation at WFF;
- Establish relationships with suppliers capable of providing for transportation (rail, sea, air, and road), logistics (e.g., specialized cranes, fuels), and other similar services;
- Provide GSFC/WFF-certified personnel qualified to conduct or oversee hazardous operations; and,
- Acquire knowledge of specific GSFC/WFF-unique environmental, physical, safety, and technical capabilities required to be applied to generic or mission-specific implementations and studies, necessary to support the government.

It is the determination of GSFC/WFF that alternative sources could not reproduce these capabilities in less than three years of continuous cooperative internal investments by both the contractor and GSFC. As further detailed herein, this would involve unacceptable delays in fulfilling the agency's requirements, and would also entail substantial duplication of costs to the Government that would not be expected to be recovered through competition. This determination is based upon GSFC/WFF's knowledge of the scope of the efforts, as well as insight of VCSFA's efforts in achieving these capabilities. VCSFA has developed these capabilities over a twenty-one year period. The ability to sufficiently develop an adequate understanding of VCSFA's launch infrastructure and

establish comparable plans and procedures for its use is predicted to take one to two work years. This estimate reflects the time necessary to develop detailed understanding of architectural drawings for two separate and unique launch pads and associated equipment, as well as perform engineering analyses concerning structural capabilities associated with various flight systems and local weather contributions. It reflects necessary time to analyze and develop modification concepts for mechanical, electrical, communications, and other interfaces between VCSFA launch complexes and various flight systems. It also reflects the time necessary to evaluate modifications, testing, certification, construction of new facilities, and maintenance of the infrastructure as needed prior to governmental use.

The accumulation of comprehensive launch vehicle specific design information necessary to support infrastructure and mission planning is estimated to take approximately one work year. There are in excess of a dozen existing potential launch vehicle configurations and in excess of twenty currently planned vehicle concepts that could potentially launch from VCSFA-owned launch infrastructure at GSFC/WFF. Each vehicle is unique, and for strategic, facility, and mission planning purposes, all must be understood by GSFC/WFF to some level of technical detail.

**10. Sources, if any, that expressed an interest, in writing, in the acquisition:**

As stated above, a notice to FEDBizOpps was published to announce NASA's GSFC/WFF's intentions to extend this contract. Firms desiring consideration were requested to fully identify their interest and capabilities within 15 days of publication of the synopsis. No responses were received as of the May 2, 2014, closing date.

**11. State the actions, if any, that the Agency may take to remove or overcome any barriers to competition before any subsequent acquisition for the supplies or services required:**

This authority is used to satisfy an agency requirement where no technically acceptable alternative solutions currently exist, and are unlikely to exist in the near future. If any other entities express an interest in performing this work in the future, GSFC/WFF will communicate with them and provide the necessary support to foster that possibility.

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**For the Virginia Commercial Space Flight Authority**

**SIGNATURE PAGE**

**TECHNICAL DIRECTORATE:** I certify that the facts presented in this Justification are accurate and complete.

  
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Signature 4/24/2014  
\_\_\_\_\_  
Date

**CONTRACTING OFFICER:** I certify that the Justification is accurate and complete to the best of my knowledge and belief.

  
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Signature 5/2/2014  
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Date