

Space Technology Mission Directorate
Flight Opportunities Program
Source Selection Statement

Flight Opportunities
Flight and Payload Integration Services
NND14480735R

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Source Selection Authority

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Introduction

On August 5, 2014, as the designated Source Selection Authority (SSA), I, along with senior officials at NASA Headquarters, met with the Program Officer (Flight Opportunities Program Executive), the Flight Opportunities Program Manager, and the Chair of the Source Evaluation Committee (SEC) that was appointed to evaluate proposals submitted in response to the Request for Proposals (RFP) entitled, “Flight Opportunities Flight and Payload Integration Services” at NASA Armstrong Flight Research Center (AFRC). Relevant portions of the SEC’s evaluation of proposals, and my decision on selection of successful Offerors are set forth in this Source Selection Statement.

A. Procurement History Narrative

The NASA Space Technology Mission Directorate (STMD) Flight Opportunities Program (hereafter “the Program”) has worked towards maturing flight readiness of new crosscutting technologies that advance or enable multiple future space missions. Through a multiple award contract, the Program has provided opportunities to fly technology payloads on flight platforms that provide reduced gravity or other relevant environments required to test technologies in order to advance their technology readiness.

The Program intends to continue to provide frequent flight opportunities for technology payloads on vehicles that are capable of flying to various altitudes and flight conditions. Technology payloads, which are solicited under a separate Announcements of Flight Opportunities issued by the Program, were not part of this solicitation.

The Program sought to acquire commercial flight and payload integration services to fly technology payloads on missions to help achieve the goals of the STMD. This procurement was solicited and evaluated under the provisions of Federal Acquisition Regulation (FAR) Part 12, Acquisition of Commercial Items, and is an Indefinite Delivery - Indefinite Quantity, task-order-based contract with a five-year period of performance.

The RFP was issued on March 25, 2014, and proposals were received from the following six Offerors (listed in alphabetical order) on May 16, 2014:

- Interorbital Systems, Inc.
- Masten Space Systems, Inc.
- Paragon Space Development Corporation
- UP Aerospace, Inc.
- Virgin Galactic, LLC
- Whittinghill Aerospace, LLC

A proposal submitted by Near Space Corporation was received after the published deadline and was not evaluated. The proposal was not opened and the Offeror was informed by electronic mail on May 28, 2014.

B. Evaluation Process

I appointed an SEC, comprised of technical and programmatic experts, to review proposals. Proposals were evaluated using the review criteria described in the solicitation and summarized below. I reviewed the results and findings of the SEC in order to make the final selection of proposals for contract award.

The SEC first reviewed all proposals for major deficiencies or omissions in accordance with the RFP. The proposal from Whittinghill Aerospace, LLC was determined to contain major deficiencies because the Offeror failed to “provide a description and proof of a Qualified Vehicle (QV) or QV family that: (1) has flown test phase to a level sufficient enough to show that it is capable of providing one or more of the Flight Profiles in the Performance Work Statement (PWS) to flight standards acceptable by the commercial market, and (2) meets the requirements for reusability” (Addendum to FAR 52.212-1 “Instructions to Offerors,” Paragraph 1(a)). Additionally, the Offeror’s proposal failed to address how the proposed vehicle will attain launch altitude other than by use of dedicated NASA assets. PWS Section 4.2.1 states that “the Contractor shall operate independently from the Government.” Finally, the Offeror failed to address “applicable permits, licenses, waivers, and/or flight approvals” for either proposed vehicle (PWS 6.2.1 and Addendum to 52.212-2 “Evaluation; Commercial Items,” Paragraph (A)(2)). This offeror was informed in writing of the results of the review and the nature of his proposal’s deficiencies on July 30, 2014. This proposal was not evaluated further.

The appointed SEC concluded its evaluations of responsive proposals on July 16, 2014. The SEC's assessments included consideration of the following evaluation factors, listed in the RFP in descending order of importance: Technical Acceptability Factor, Past Performance Factor, and Price Factor. The Factors were not numerically scored. The evaluation was conducted in two phases: (1) Technical Acceptability; and (2) Past Performance and Price integrated value trade-off.

Technical Acceptability Evaluation

Technical Acceptability was evaluated on a "pass/fail" basis and assessed the capability of the Offeror to accomplish the work to be performed as detailed in the PWS of the RFP. The proposals were evaluated against the following four subfactors (to be determined Technically Acceptable, a proposal was required to meet ALL listed factors). Evaluation of any proposal determined to be "Technically Unacceptable" was discontinued and the overall proposal determined to be Unacceptable.

1. Subfactor 1 evaluated the Offeror's operational capability to provide commercial services for one (or more) of the required flight profiles using a proven qualified flight vehicle(s) or vehicle family.
2. Subfactor 2 evaluated the Offeror's ability to provide commercial services, including payload integration, safety and mission assurance, environmental compliance, and regulatory compliance, independently of Government assistance and oversight.
3. Subfactor 3 evaluated the Offeror's ability to respond appropriately to task orders and the ability to secure and recover payloads.
4. Subfactor 4 evaluated the reusability of the Offeror's proposed qualified vehicle(s) against the required standard for the type of flight vehicle proposed.

Performance Confidence Assessment

For proposals that were determined to be "Technically Acceptable," the SEC determined a level of Performance Confidence by an evaluation of those Offerors' Past Performance. This assessment process resulted in an overall performance confidence rating, using the adjective ratings as defined in NASA FAR Supplement (NFS) Section 1815.305:

- Very High Level of Confidence
- High Level of Confidence
- Moderate Level of Confidence
- Neutral (or Unknown Confidence)
- Low Level of Confidence
- Very Low Level of Confidence

Relevant performance included performance of efforts involving comprehensive commercial space flight and integration services that were similar to or greater in scope, magnitude, and complexity than the effort described in this solicitation. Evaluation of past performance was subjective, based on consideration of all relevant facts and circumstances, including relevance to work required by the solicitation.

Price Factor Evaluation

For those proposals that were determined to be “Technically Acceptable,” the SEC performed a detailed analysis of the proposed pricing, compared to an Independent Government Estimate based on current and historical proprietary pricing data from multiple sources. Although the price volume was not numerically scored and received no adjectival rating, it was important in determining that the Offeror understood the requirement and the resources required to satisfy it. Price analysis techniques were applied to the evaluated price to ensure that the Government would pay a Fair and Reasonable price. Because adequate price competition was not achieved for the base and two option years, the SEC used the IGE to evaluate price.

Integrated Assessment

The SEC ranked Technically Acceptable proposals by Performance Confidence and Price in order to provide for an integrated assessment for a best value decision for contract awards.

C. Findings Narrative

The following narrative summarizes the SEC’s findings for the three evaluation factors, as applied to the remaining five Offerors.

1. Technical Acceptability Factor Evaluation

Four proposals were determined by consensus of the SEC to be Technically Acceptable, based on the Offerors having proposed technically acceptable responses to all four evaluation subfactors, and having provided a complete and acceptable discussion of all elements of the PWS. Each Technically Acceptable Offeror provided acceptable proof of having provided successful commercial flights meeting this flight profile requirement and a comprehensive plan for independent operations with sufficient proof of applicable regulatory permits to operate in the capacity required by the government.

- Masten Space Systems, Inc. proposed vehicles capable of providing planetary lander simulations and other similar profiles, with payloads up to 40kg, in response to profile P4 as defined in the PWS, meeting the reusability

requirement by standard of vehicle dry mass with a clear explanation of how this was calculated.

- Paragon Space Development Corp. proposed a family of two high altitude balloons with acceptable proof that the vehicles were capable of lifting payloads of either 285 kg or 20 kg to altitudes meeting the 30 km requirement in response to profile P2 as defined in the PWS.
- UP Aerospace, Inc. proposed a sounding rocket with acceptable proof that the vehicle is capable of lifting a 37 kg payload to altitudes exceeding 100 km in response to profiles P1 and P3 as defined in the PWS.
- Virgin Galactic, LLC proposed a spacecraft family of vehicles with acceptable proof that the vehicles are capable of lifting several payloads up to 453 kg across 20 middeck locker equivalent payload slots to altitudes 100 km, or for extended flight above 30 km, in response to profiles P1 and P5 as defined in the PWS.

One proposal was determined to be Technically Unacceptable, and further evaluation of that proposal was discontinued:

- Interorbital Systems proposed a sounding rocket with a stated theoretical capability of lifting a 145 kg payload to over 310 km altitude, in response to profiles P1 and P3 as defined in the PWS. However, this proposal was evaluated as “unacceptable” in subfactors 1,2 and 3. The Offeror failed to provide acceptable evidence that its proposed QV is capable of achieving the minimum required altitude. The evidence of a test flight to 3km (10,000 feet) AGL is substantially below the minimum of 80km (262,000 feet) AGL to meet either P1 or P3 requirements. The Offeror failed to adequately address flight safety and mission assurance. The proposal failed to provide adequate rationale to establish that the Offeror’s recovery system, tested to only 3km, will also function at the minimum requirement of 80km. Offeror further failed to discuss how payloads launched at sea will be recovered and reused. Additionally, the proposal did not adequately address accessibility to payloads and data by payload providers prior to and subsequent to flights.

2. Performance Confidence Evaluation Factor

Summary of Evaluations:

The SEC assessed Performance Confidence for the Past Performance of all four technically acceptable Offerors and determined that all four Offerors have an acceptable level of performance confidence in efforts that were relevant to this acquisition. To make each determination, the SEC utilized the information as provided by each offeror. Where past performance as provided was deemed irrelevant, or insufficient to determine a well justified level of confidence, the SEC utilized surveys which were either requested by the offerors or by the contract specialist. Due to sufficient past performance information for each offeror that was deemed technically acceptable, none of the offerors had to be considered “Neutral” in past performance. The resulting adjectival ratings are as follows:

- Masten Space Systems, Inc.: Very High Level of Confidence. Based on customer surveys from technical monitors on an on-going NASA JPL contract and NASA Ames contract, Masten has been providing an excellent quality of service on an existing Flight Opportunities Program contract that is very highly relevant to this solicitation, having provided successful flights for several Flight Opportunities experiments. Other surveys indicated that other commercial customers have also benefitted and experienced the same quality of service and reliability of Masten operations that the SEC has deemed relevant to this requirement.
- UP Aerospace, Inc.: Very High Level of Confidence. Based on surveys from technical monitors, UP Aerospace has continued to provide an excellent level of service to the NASA Flight Opportunities Program and a few commercial customers through the current NASA Armstrong IDIQ contract and for other Government agencies. The quantity of work performed to achieve this confidence level has been significant. Based on UP Aerospace’s Past Performance Volume and validated by a customer survey, UP Aerospace has flown three full manifests with the commercial space flight designators SpaceLoft (SL) 7, SL8, and SL9. The SEC deemed this work relevant to this requirement.
- Paragon Space Development Corporation: High Level of Confidence. Paragon has provided a high quality of commercial service to a confidential customer that is highly relevant to this solicitation based on information provided in the Past Performance Volume. Additionally, Paragon has demonstrated a robust engineering capability in work that the SEC deemed relevant to this requirement based on a past performance survey from NASA Ames Research Center. The same survey commented on the excellent quality assurance program that Paragon Space developed for the purpose of independent quality assurance surveillance in performing contracts for government and commercial customers.

- Virgin Galactic, LLC: Moderate Level of Confidence. Based on VG’s Past Performance Volume and surveys from technical monitors of the current NASA Armstrong contract, Virgin Galactic has performed work that is highly relevant to this solicitation. Both sources also stated that VG’s subcontractors have a history of designing successful, advanced-mission aircraft, spacecraft, and related components (NanoRacks and Scaled Composites). VG had deficiencies in its schedule planning, however, that caused delays on the previous Flight Opportunities Program IDIQ contract.

3. Price Evaluation Factor

The table below is a summary of the Technically Acceptable Offerors and the profiles they are capable of providing:

OFFEROR	P1 Reduced Gravity with space environment	P2 Exposure to high altitude	P3 Space environment with free-fall descent	P4 Controlled descent with controlled vertical landing	P5 Controlled high-altitude ascent and descent
MASTEN				*	
UP	*		*		
PARAGON		*			
VIRGIN	*				*

For all four Technically Acceptable Offerors, the SEC evaluated the reasonableness of proposed prices in four areas:

- NASA used different IGE for each flight configuration/mission profile. All offerors were evaluated based on the lowest priced configuration and profile proposed since these values will also be the minimum values for each IDIQ contract awarded. The following prices for the three base years of the contract period for the most likely configurations/missions to be ordered by the Program were compared against the Independent Government Estimate (IGE). One offeror, Virgin Galactic LLC, provided the price by the payload slot, and was evaluated based on this price instead of the full manifest price.

OFFEROR	Profile Evaluated	IGE Range (1 Yr)	CY2015	CY2016	CY2017
MASTEN	Profile 4 Full Manifest	\$59,000 - \$583,000	\$ 236,000	\$ 247,800	\$ 260,190
VIRGIN	Profile 1 Payload Slot	\$ 38,000 - \$99,000	\$ 100,000	\$ 100,000	\$ 100,000
PARAGON	Profile 2 Full Manifest	\$15,000 - \$465,000	\$ 340,000	\$ 315,000	\$ 315,000
UP AERO	Profile 3 Full Manifest	\$130,000 - \$820,000	\$ 635,386	\$ 654,448	\$ 674,081

- Pricing data for higher altitudes and/or more payload mass and volume were compared to the IGE and historical data.
- Fixed prices for commonly-requested, non-standard services were compared to historical data.
- Fixed hourly labor rates for uncommon, non-standard services were compared to historical data and other contracts for the same or similar labor categories.

The SEC determined that their proposed pricing demonstrated that all four Offerors fully understood the requirement and the resources required to satisfy it.

The SEC concluded that all prices from the four Technically Acceptable Offerors were Fair and Reasonable.

D. Summary of Evaluation Findings

On July 28, 2014, the SEC Chairman reviewed the SEC’s findings with the STMD Deputy Associate Administrator, Flight Opportunities Program Officer and Project Manager, and other senior staff of STMD constituting the Advisory Panel. This included a summary of the source evaluation process as well as the summary of findings listed in the table below. The Advisory Panel indicated concurrence with the SEC’s findings.

The SEC’s full findings and recommendations are summarized in the following table, ranked by Performance Confidence rating. Offerors shown with white background are considered selectable; those shown grayed out are considered to be non-selectable for the reasons indicated.

OFFEROR	INITIAL EVALUATION	TECHNICAL ACCEPTABILITY	PERFORMANCE CONFIDENCE	PRICE
Masten	RESPONSIVE	ACCEPTABLE	VERY HIGH	FAIR AND REASONABLE
UP	RESPONSIVE	ACCEPTABLE	VERY HIGH	FAIR AND REASONABLE
Paragon	RESPONSIVE	ACCEPTABLE	HIGH	FAIR AND REASONABLE
Virgin	RESPONSIVE	ACCEPTABLE	MODERATE	FAIR AND REASONABLE
Interorbital*	RESPONSIVE	UNACCEPTABLE	DID NOT EVALUATE	DID NOT EVALUATE
Whittinghill**	DEFICIENT	DID NOT EVALUATE	DID NOT EVALUATE	DID NOT EVALUATE

* The SEC did not evaluate the Past Performance or Price factors for Interorbital because the proposal was not technically acceptable

** The SEC did not evaluate any factors for Whittinghill because the proposal contained major deficiencies

E. Source Selection Decision

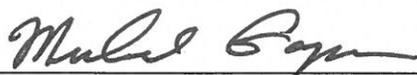
The SEC Chairman presented the details of the evaluation results to me on August 5, 2014. During that presentation, I asked questions and received clarifications to the team's findings, as needed, to more accurately understand the evaluation results. I am confident that those results form a solid basis upon which I may make this selection decision.

Using the findings presented by the SEC, and not taking any exceptions to the results presented, I concur with the overall ratings for Technical Factor, Past Performance Factor, and Price Factor, as well as the ranking of proposals based on a tradeoff between the Past Performance and Price. I believe that the selected proposals represent the best value to the Government. Each of the four (4) proposals selected for award exhibits a strong technical capability necessary for the execution of Space Technology Mission Directorate goals for the Flight Opportunities Program.

I further conclude that holding discussions with the Offeror not selected will not likely result in the Offeror overcoming my selection decision.

Therefore, I select the following vendors for contract award negotiations from this solicitation without the requirement for final proposal revisions.

- Masten Space Systems, Inc.
- UP Aerospace, Inc.
- Paragon Space Development Corporation
- Virgin Galactic, LLC



Michael J. Gazarik, PhD.
Space Technology Mission Directorate
Associate Administrator/Source Selection Authority

Sept 4 2014
Date