

**Periodic Table of Acquisition Innovations**

**Publish Source Selection Authority Decision: Content Page**

**NASA Memoranda**

<b>Document Title</b>	<b>Page Number (PDF count)</b>
Content Page	1
Commercial Lunar Payload Services (CLPS)	2-17
Construction, Maintenance, Environmental & Testing Services (COMETS)	18-25
NASA Open Innovation Services (NOIS) 2	26-38
NEXT-Step 2 Human Landing System (HLS)	39-54

**SOURCE SELECTION STATEMENT FOR  
COMMERCIAL LUNAR PAYLOAD SERVICES (CLPS)  
Solicitation Number: 80HQTR18R0011R**

On November 8, 2018, I along with senior officials from the National Aeronautics and Space Administration (NASA or the Agency) met with the Source Evaluation Board (SEB) appointed to evaluate proposals in connection with the Commercial Lunar Payload Services (CLPS) procurement. This memorandum documents my decision at the conclusion of that meeting.

**PROCUREMENT DESCRIPTION**

CLPS requires a contractor (or contractors) to provide end-to-end “commercial” payload services between the Earth and the lunar surface for NASA’s Science, Human Exploration and Operations, and Space Technology Mission Directorates (SMD, HEOMD, and STMD, respectively) to fulfill each Mission Directorate’s mission objectives. The contractor(s) shall provide all activities necessary to safely integrate, accommodate, transport, and operate NASA payloads using contractor-provided assets, including launch vehicles, lunar lander, lunar surface systems, Earth re-entry vehicles, and associated resources. The contractor(s) shall select launch opportunities, determine the overall Mission Architecture, and provide the end-to-end service including operations associated with the Launch Vehicle, Launch Site, Spacecraft, Lander, Mission Design and Analysis, Ground Systems, and Payload Support. The Contractor(s) shall be responsible for all taxes, licenses, permits, and approvals necessary to perform the mission. Payload Support includes: physical and analytical integration of NASA-provided payloads, launch and transport of NASA-provided payloads to specified lunar-related destinations, provision of utility resources to the NASA-provided payloads, and other related mutually agreed upon services such as the sale of non-NASA payload data to NASA.

CLPS is a competitive procurement that NASA intends will result in multiple awards of Firm-Fixed Price (FFP) Indefinite Delivery, Indefinite Quantity (IDIQ) type contracts. All CLPS IDIQ base contract awardees will be given a fair opportunity to compete for mission-specific and payload-dependent FFP Task Orders for a ten (10) year effective ordering period.

The CLPS procurement is limited to entities that qualify as United States commercial providers that provide a CLPS which utilizes domestic end products in accordance with the terms and conditions set forth in the CLPS RFP.

The following ten (10) companies responded to the CLPS Request for Proposals (RFP or Solicitation):

Astrobotic Technology, Inc. (Astrobotic)  
Crow Industries, Inc. (Crow)  
Deep Space Systems, Inc. (Deep Space Systems)

Firefly Aerospace, Inc. (Firefly)  
Intuitive Machines, LLC (Intuitive Machines)  
Lockheed Martin Corporation (DBA: Lockheed Martin Space Systems Company)  
(Lockheed Martin)  
Masten Space Systems, Inc. (Masten)  
Moon Express, Inc. (Moon Express)  
Orbit Beyond, Inc. (Orbit Beyond)  
The Charles Stark Draper Laboratory, Inc. (Draper)

### **EVALUATION AND SOURCE SELECTION PROCEDURES**

The Source Evaluation Board (SEB) included representatives from numerous NASA field centers as well as NASA Headquarters.

Pursuant to the CLPS RFP's evaluation scheme and FAR 52.212-2 (deviated), and in accordance with FAR 16.504(c), NASA intends to award multiple CLPS base contracts to the responsible offerors whose proposals conforming to the RFP will be the most advantageous to the Government. Offerors were to be evaluated solely on the basis of Technical Acceptability. In accordance with FAR Part 15.304(c)(3)(iii), the Contracting Officer determined that past performance is not an appropriate evaluation factor for the CLPS base contract procurement. Additionally, in accordance with Section 825 of the National Defense Authorization Act for Fiscal Year 2017 and NASA Procurement Class Deviation 18-02, the Contracting Officer determined that price would not be considered as an evaluation factor. Rather, CLPS IDIQ base contract holders' pricing and past performance will be considered in a competitive environment on future Requests for Task Order Proposals under this CLPS base contract.

Offerors were required to demonstrate present responsibility to be considered for award, in accordance with the standards and procedures set forth in FAR Subpart 9.1. Offerors were also required to provide an acceptable Organizational Conflict of Interest (OCI) Avoidance Plan. Additionally, large businesses were required to submit Small Business Subcontracting Plans.

The CLPS RFP set forth five (5) Technical Acceptability Standards (TAS) for evaluating the offerors' proposals. The RFP identified three potential ratings for each of the five TAS's identified above: "Acceptable," "Potentially Acceptable," or "Unacceptable." A proposal was rated "Potentially Acceptable" in a particular TAS when, after the initial evaluation, the evaluation team concluded that additional information could be provided by an Offeror during discussions (if utilized) that might result in a proposal rating of "Acceptable."

According to the RFP's Technical Acceptability Evaluation criteria, proposals must be rated "Acceptable" in all five TAS to be eligible for contract award and award would only be made to offeror(s) with an "Acceptable" rating. Further, a failure to meet any one of the TAS would result in an overall "Unacceptable" rating and render an offeror's proposal ineligible to be selected for contract award.

In accordance with the CLPS RFP, each TAS was evaluated for acceptability, with appropriate consideration given to the following: adequacy, reasonableness, credibility and risk related to each offeror's ability to successfully address the TAS, including each offeror's capability to successfully perform the "reference" mission.

Each TAS was comprised of one or more considerations that offerors were required to address in their proposals. Each consideration was assessed in accordance with the RFP, however, the SEB did not assign acceptability ratings to each individual consideration. Rather, in determining the appropriate acceptability rating for each offeror under each TAS, the SEB engaged in a holistic assessment of the offerors' proposals with meaningful consideration of the adequacy, reasonableness, credibility and risk, where appropriate, for all considerations associated with a particular TAS in order to develop an overall acceptability rating for each TAS.

The five (5) enumerated TAS as set forth in the CLPS RFP were as follows:

- (1) The Offeror's ability to provide an intact lunar landed mission that delivers at least 10 kg of NASA payload before December 31, 2021.
- (2) The Offeror's understanding of licensing, permitting, and approvals required in support of a commercial space mission.
- (3) The Offeror's proposed plans and arrangements for launch from Earth to the Moon.
- (4) The Offeror's proposed spacecraft design parameters for an intact lunar landing.
- (5) The Offeror's proposed facilities and processes for integrating NASA payloads.

The CLPS RFP indicated that NASA intended to evaluate proposals and award contract(s) without discussions with offerors.

Selection of offerors for the CLPS base contract(s) will be determined solely by the results of each offeror's proposal under the five TAS. No comparative assessment between or among each offeror's proposed CLPS solution would be undertaken and no trade-offs would be made. NASA's intention is to issue competitive Requests for Task Order Proposals for future missions with comparative assessments and trade-offs between contract holders' technical solutions, price and past performance (where appropriate) in order to acquire the "best value" CLPS solution for a particular NASA payload and mission requirement.

## **EVALUATION RESULTS**

All ten (10) Offerors were determined to be eligible sources for this procurement, as well as presently responsible based upon the Contracting Officer's evaluation of responsibility and FAR Subpart 9.1. Additionally, all ten (10) Offerors provided acceptable OCI Avoidance Plans, as required by the RFP. The two large business offerors (Lockheed and Draper) submitted the required Small Business Subcontracting Plans.

The results of each offeror's technical acceptability evaluation under the TAS are summarized below:

### **Astrobotic**

Astrobotic was evaluated as "Acceptable" under all five (5) TAS. The basis for these ratings is as follows:

#### **TAS 1: Acceptable**

The SEB found that Astrobotic proposed a credible description of its reference mission and an adequate schedule with key milestones, as well as an adequate engineering design process and an adequate financial plan for developing lunar capabilities.

#### **TAS 2: Acceptable**

The SEB found that Astrobotic proposed a credible and adequate plan for licensing and approval.

#### **TAS 3: Acceptable**

The SEB found that Astrobotic adequately described its plan for acquiring launch services.

#### **TAS 4: Acceptable**

The SEB found that Astrobotic's description of its mission operation sequence was credible. The SEB also found that Astrobotic proposed an adequate payload capacity, along with a reasonable description of mass, power, and thermal budgets and an adequate discussion of delta V budgets. Finally, the SEB found that Astrobotic's description of top risks and the offeror's plan to manage those risks were reasonable.

#### **TAS 5: Acceptable**

The SEB found that Astrobotic's plan for analysis regarding payload integration was adequate and that Astrobotic had proposed a reasonable description of assembly, test, and integration, as well as credible plans for clean room usage. Finally, the SEB found that Astrobotic had provided an adequate description for ensuring payload and data integrity.

## Crow

### TAS 1: Unacceptable

The SEB found that while Crow did propose a credible description of its reference mission and an adequate financial plan for developing lunar capabilities, Crow's proposed development schedule was not credible and did not adequately address or identify its path for or milestones associated with engine system development. Likewise, Crow did not include an adequate description of critical aspects of its engineering design process. Based upon these issues, the SEB determined that Crow's proposal was Unacceptable under this TAS.

### TAS 2: Acceptable

The SEB found that Crow proposed a credible and adequate plan for licensing and approval.

### TAS 3: Acceptable

The SEB found that Crow adequately described its plan for acquiring launch services.

### TAS 4: Unacceptable

While Crow was evaluated to have proposed an adequate description of its mission sequence as well as an adequate payload capacity, the SEB found that Crow's proposed mass budget was not credible for its payload mass and that its mass estimate for its main engines was also not credible. Further, the SEB found that Crow's proposal did not adequately describe the material risks to success of the offeror's reference mission. Based upon these issues, the SEB determined that Crow's proposal was Unacceptable under this TAS.

### TAS 5: Potentially Acceptable

The SEB found that Crow's proposal failed to adequately address several areas required by the RFP, including analysis for payload integration, physical security, and payload integrity and protection. Based upon these evaluated issues, the SEB concluded that additional information that Crow might be able to provide during discussions (if they were conducted) could result in its proposal being rated as "Acceptable" under this TAS. As such, the SEB determined that "Potentially Acceptable" was the most appropriate evaluation rating for Crow under this TAS.

## **Deep Space Systems**

Deep Space Systems was evaluated as “Acceptable” under all five (5) TAS. The basis for these ratings is as follows:

### **TAS 1: Acceptable**

The SEB found that Deep Space Systems proposed a credible description of its reference mission and an adequate schedule with key milestones, as well as an adequate engineering design process and an adequate financial plan for developing lunar capabilities.

### **TAS 2: Acceptable**

The SEB found that Deep Space Systems proposed a credible and adequate plan for licensing and approval.

### **TAS 3: Acceptable**

The SEB found that Deep Space Systems adequately described its plan for acquiring launch services.

### **TAS 4: Acceptable**

The SEB found that Deep Space Systems’ description of its mission operation sequence was credible. The SEB also found that Deep Space Systems proposed an adequate payload capacity, along with a reasonable description of mass, power, and thermal budgets and an adequate discussion of delta V budgets. Finally, the SEB found that Deep Space Systems’ description of top risks and the offeror’s plan to manage those risks were reasonable.

### **TAS 5: Acceptable**

The SEB found that Deep Space Systems’ plan for analysis regarding payload integration was adequate and that Deep Space Systems had proposed a reasonable description of assembly, test, and integration, as well as credible plans for clean room usage. Finally, the SEB found that Deep Space Systems had provided an adequate description for ensuring payload and data integrity.

## **Firefly**

Firefly was evaluated as “Acceptable” under all five (5) TAS. The basis for these ratings is as follows:

### **TAS 1: Acceptable**

The SEB found that Firefly proposed a credible description of its reference mission and an adequate schedule with key milestones, as well as an adequate engineering design process and an adequate financial plan for developing lunar capabilities.

### **TAS 2: Acceptable**

The SEB found that Firefly proposed a credible and adequate plan for licensing and approval.

### **TAS 3: Acceptable**

The SEB found that Firefly adequately described its plan for acquiring launch services.

### **TAS 4: Acceptable**

The SEB found that Firefly’s description of its mission operation sequence was credible. The SEB also found that Firefly proposed an adequate payload capacity, along with a reasonable description of mass, power, and thermal budgets and an adequate discussion of delta V budgets. Finally, the SEB found that Firefly’s description of top risks and the offeror’s plan to manage those risks were reasonable.

### **TAS 5: Acceptable**

The SEB found that Firefly’s plan for analysis regarding payload integration was adequate and that Firefly had proposed a reasonable description of assembly, test, and integration, as well as credible plans for clean room usage. Finally, the SEB found that Firefly had provided an adequate description for ensuring payload and data integrity.



## **Intuitive Machines**

Intuitive Machines was evaluated as “Acceptable” under all five (5) TAS. The basis for these ratings is as follows:

### **TAS 1: Acceptable**

The SEB found that Intuitive Machines proposed a credible description of its reference mission and an adequate schedule with key milestones, as well as an adequate engineering design process and an adequate financial plan for developing lunar capabilities.

### **TAS 2: Acceptable**

The SEB found that Intuitive Machines proposed a credible and adequate plan for licensing and approval.

### **TAS 3: Acceptable**

The SEB found that Intuitive Machines adequately described its plan for acquiring launch services.

### **TAS 4: Acceptable**

The SEB found that Intuitive Machines’ description of its mission operation sequence was credible. The SEB also found that Intuitive Machines proposed an adequate payload capacity, along with a reasonable description of mass, power, and thermal budgets and an adequate discussion of delta V budgets. Finally, the SEB found that Intuitive Machines’ description of top risks and the offeror’s plan to manage those risks were reasonable.

### **TAS 5: Acceptable**

The SEB found that Intuitive Machines’ plan for analysis regarding payload integration was adequate and that Intuitive Machines had proposed a reasonable description of assembly, test, and integration, as well as credible plans for clean room usage. Finally, the SEB found that Intuitive Machines had provided an adequate description for ensuring payload and data integrity.

## **Lockheed Martin**

Lockheed Martin was evaluated as “Acceptable” under all five (5) TAS. The basis for these ratings is as follows:

### **TAS 1: Acceptable**

The SEB found that Lockheed Martin proposed a credible description of its reference mission and an adequate schedule with key milestones, as well as an adequate engineering design process and an adequate financial plan for developing lunar capabilities.

### **TAS 2: Acceptable**

The SEB found that Lockheed Martin proposed a credible and adequate plan for licensing and approval.

### **TAS 3: Acceptable**

The SEB found that Lockheed Martin adequately described its plan for acquiring launch services.

### **TAS 4: Acceptable**

The SEB found that Lockheed Martin’s description of its mission operation sequence was credible. The SEB also found that Lockheed Martin proposed an adequate payload capacity, along with a reasonable description of mass, power, and thermal budgets and an adequate discussion of delta V budgets. Finally, the SEB found that Lockheed Martin’s description of top risks and the offeror’s plan to manage those risks were reasonable.

### **TAS 5: Acceptable**

The SEB found that Lockheed Martin’s plan for analysis regarding payload integration was adequate and that Lockheed Martin had proposed a reasonable description of assembly, test, and integration, as well as credible plans for clean room usage. Finally, the SEB found that Lockheed Martin had provided an adequate description for ensuring payload and data integrity.

## **Masten**

Masten was evaluated as “Acceptable” under all five (5) TAS. The basis for these ratings is as follows:

### **TAS 1: Acceptable**

The SEB found that Masten proposed a credible description of its reference mission and an adequate schedule with key milestones, as well as an adequate engineering design process and an adequate financial plan for developing lunar capabilities.

### **TAS 2: Acceptable**

The SEB found that Masten proposed a credible and adequate plan for licensing and approval.

### **TAS 3: Acceptable**

The SEB found that Masten adequately described its plan for acquiring launch services.

### **TAS 4: Acceptable**

The SEB found that Masten’s description of its mission operation sequence was credible. The SEB also found that Masten proposed an adequate payload capacity, along with a reasonable description of mass, power, and thermal budgets and an adequate discussion of delta V budgets. Finally, the SEB found that Masten’s description of top risks and the offeror’s plan to manage those risks were reasonable.

### **TAS 5: Acceptable**

The SEB found that Masten’s plan for analysis regarding payload integration was adequate and that Masten had proposed a reasonable description of assembly, test, and integration, as well as credible plans for clean room usage. Finally, the SEB found that Masten had provided an adequate description for ensuring payload and data integrity.

## **Moon Express**

Moon Express was evaluated as “Acceptable” under all five (5) TAS. The basis for these ratings is as follows:

### **TAS 1: Acceptable**

The SEB found that Moon Express proposed a credible description of its reference mission and an adequate schedule with key milestones, as well as an adequate engineering design process and an adequate financial plan for developing lunar capabilities.

### **TAS 2: Acceptable**

The SEB found that Moon Express proposed a credible and adequate plan for licensing and approval.

### **TAS 3: Acceptable**

The SEB found that Moon Express adequately described its plan for acquiring launch services.

### **TAS 4: Acceptable**

The SEB found that Moon Express’s description of its mission operation sequence was credible. The SEB also found that Moon Express proposed an adequate payload capacity, along with a reasonable description of mass, power, and thermal budgets and an adequate discussion of delta V budgets. Finally, the SEB found that Moon Express’s description of top risks and the offeror’s plan to manage those risks were reasonable.

### **TAS 5: Acceptable**

The SEB found that Moon Express’s plan for analysis regarding payload integration was adequate and that Moon Express had proposed a reasonable description of assembly, test, and integration, as well as credible plans for clean room usage. Finally, the SEB found that Moon Express had provided an adequate description for ensuring payload and data integrity.

## **Orbit Beyond**

Orbit Beyond was evaluated as “Acceptable” under all five (5) TAS. The basis for these ratings is as follows:

### **TAS 1: Acceptable**

The SEB found that Orbit Beyond proposed a credible description of its reference mission and an adequate schedule with key milestones, as well as an adequate engineering design process and an adequate financial plan for developing lunar capabilities.

### **TAS 2: Acceptable**

The SEB found that Orbit Beyond proposed a credible and adequate plan for licensing and approval.

### **TAS 3: Acceptable**

The SEB found that Orbit Beyond adequately described its plan for acquiring launch services.

### **TAS 4: Acceptable**

The SEB found that Orbit Beyond’s description of its mission operation sequence was credible. The SEB also found that Orbit Beyond proposed an adequate payload capacity, along with a reasonable description of mass, power, and thermal budgets and an adequate discussion of delta V budgets. Finally, the SEB found that Orbit Beyond’s description of top risks and the offeror’s plan to manage those risks were reasonable.

### **TAS 5: Acceptable**

The SEB found that Orbit Beyond’s plan for analysis regarding payload integration was adequate and that Orbit Beyond had proposed a reasonable description of assembly, test, and integration, as well as credible plans for clean room usage. Finally, the SEB found that Orbit Beyond had provided an adequate description for ensuring payload and data integrity.

## **Draper**

Draper was evaluated as “Acceptable” under all five (5) TAS. The basis for these ratings is as follows:

### **TAS 1: Acceptable**

The SEB found that Draper proposed a credible description of its reference mission and an adequate schedule with key milestones, as well as an adequate engineering design process and an adequate financial plan for developing lunar capabilities.

### **TAS 2: Acceptable**

The SEB found that Draper proposed a credible and adequate plan for licensing and approval.

### **TAS 3: Acceptable**

The SEB found that Draper adequately described its plan for acquiring launch services.

### **TAS 4: Acceptable**

The SEB found that Draper’s description of its mission operation sequence was credible. The SEB also found that Draper proposed an adequate payload capacity, along with a reasonable description of mass, power, and thermal budgets and an adequate discussion of delta V budgets. Finally, the SEB found that Draper’s description of top risks and the offeror’s plan to manage those risks were reasonable.

### **TAS 5: Acceptable**

The SEB found that Draper’s plan for analysis regarding payload integration was adequate and that Draper had proposed a reasonable description of assembly, test, and integration, as well as credible plans for clean room usage. Finally, the SEB found that Draper had provided an adequate description for ensuring payload and data integrity.

## SELECTION DECISION

During the presentation, the SEB discussed with me its evaluation findings and the rationale for its conclusions for each offeror's proposal, including each offeror's assessment under the five (5) TAS. The findings that the SEB developed and presented to me were detailed, consistent with the evaluation criteria in the CLPS RFP, and provided clear descriptions of the merits of each offeror's proposal. I questioned the SEB with regard to key aspects of its evaluation methodology under each of the TAS, as well as the SEB's basis for these findings and its rationale for its overall technical ratings for all ten (10) offerors. I did so in order to be certain I fully understood this rationale and the underlying qualitative aspects of the offerors' proposals that generated the SEB's findings. I then used this information in order to determine how each offeror's proposed CLPS solution would be advantageous to the Government as a potential CLPS provider on future task orders. Finally, I solicited, received input from, and considered the inputs and opinions of key management personnel and senior advisors who had heard the presentation and who have responsibility relative to the procurement.

I concurred with the SEB for each of the offeror's respective findings under each TAS, as well as the basis for the SEB's assignment of the appropriate technical acceptability ratings for each offeror under each TAS. Furthermore, I concurred with the Contracting Officer's decision that establishment of a competitive range and the conducting of discussions were not necessary in light of the evaluation record. As such, I determined that the SEB's evaluation record, its findings, and its overall ratings for all ten (10) offerors had a rational basis and were valid for the purpose of making a selection decision.

First, with regard to Crow, after a fulsome discussion with and questions posed to the SEB, I concurred with the SEB's basis for finding Crow's proposal "Unacceptable" under both TAS 1 and 4. In particular, with regard to TAS 1, I understood and agreed with the SEB's concerns regarding the credibility of Crow's development schedule and the adequacy of its proposed design process due to a lack of substantiation concerning the firm's proposed engine system. In light of these significant gaps in its proposed design and development path forward, I concurred with the SEB that Crow's proposal was "Unacceptable" under TAS 1. With regard to TAS 4, I likewise understood and agreed with the SEB's concerns regarding the credibility of Crow's proposed mass budget due to missing payload and engine mass data. I also concurred with the SEB's finding that Crow's proposed top reference mission risks lacked the required specificity to its proposed reference mission. I found the SEB's explanation of these findings to be a testament to the thoroughness of the SEB's detailed assessment of all offerors' proposed CLPS solutions. I inquired of the SEB whether discussions might be able to remedy the evaluated issues documented under TAS 1 and 4. The SEB explained that due to the above-described fundamental issues and missing elements, Crow's proposal would require a substantial rewrite in order to be considered in the realm of "Acceptable." I agreed. Due to these issues, I concurred with the SEB that Crow's proposal was reasonably rated as "Unacceptable" under TAS 1 and 4.

Finally, with regard to TAS 5, I questioned the SEB regarding the basis for finding that Crow's proposal was "Potentially Acceptable" under TAS 5. In particular, I understood and agreed with the SEB's concerns regarding lack of detail in Crow's plans for payload integration, security, and payload integrity. After a discussion with the SEB, I concurred with its conclusion that Crow could likely remedy these issues and provide more specific information concerning the required plans during the discussions process if they were held. However, while I concurred with the SEB's decision to rate Crow as "Potentially Acceptable" under TAS 5, because the Agency is awarding CLPS contracts without discussions, Crow will not have an opportunity to address the areas of its proposal that initially warranted this rating.

In light of the foregoing reasons, I find that Crow's proposal is currently ineligible for award of a CLPS base contract and therefore do not select Crow for award.

Nevertheless, I note that the CLPS RFP mandates that the solicitation remain open during the life of the contract and anticipates that the Agency may make additional awards at regular intervals through an "on-ramp" process. Through this on-ramp process, potential offerors would be evaluated under the same TAS as were provided in this RFP. As such, it is entirely conceivable that with the help of comprehensive feedback from NASA during the debriefing process and additional proposal preparation efforts, Crow may very well be able to remedy the areas of its proposed CLPS solution presently deemed not credible or inadequate in a manner that could render Crow eligible for award of a CLPS base contract in the future.

Next, I turn to the remaining offerors that were evaluated as "Acceptable" under the criteria established in the RFP. Based upon these evaluation results and my own independent assessment thereof, as discussed below, I select all nine (9) of those offerors for award of the CLPS base contracts.

Specifically, I consider it to be in the Agency's best interests to make award to all nine (9) firms. The CLPS contract vehicle was contemplated to serve three distinct NASA Mission Directorates in meeting their respective objectives. Particularly, CLPS will enable the Science, Human Exploration and Operations, and Space Technology Mission Directorates in their respective missions to conduct a wide range of scientific, exploration, and technology development activities. In light of NASA's numerous different payload delivery needs and consistent with the RFP's preference for multiple awards, I find that the award of CLPS base contracts to these nine (9) firms will task the fullest spectrum of a burgeoning domestic commercial spaceflight industry with further developing a portfolio of potential solutions to meet the Agency's varying, payload-specific delivery needs. Award to all "Acceptable" rated offerors: encourages maximum industry participation in establishing and effectuating this portfolio approach; provides more options and flexibility to NASA for CLPS providers that best fit a particular payload need throughout contract performance; reduces overall risk; and best ensures successfully accomplishing reliable payload delivery services to the Moon.



Thus, I select for award the following firms for CLPS base contracts:

**Astrobotic Technology, Inc.**  
**Deep Space Systems, Inc.**  
**Firefly Aerospace, Inc.**  
**Intuitive Machines, LLC**  
**Lockheed Martin Space Systems Company**  
**Masten Space Systems, Inc.**  
**Moon Express, Inc.**  
**Orbit Beyond, Inc.**  
**The Charles Stark Draper Laboratory, Inc.**

11/15/2018

**X** Dennis J. Andrucyk

Dennis J. Andrucyk  
Deputy Associate Administrator, Science Mission ...  
Signed by: cards

Date \_\_\_\_\_  
Dennis J. Andrucyk  
Associate Administrator, Science Mission Directorate  
Source Selection Authority



## **SOURCE SELECTION STATEMENT**

Construction, Maintenance, Environmental & Testing Services (COMETS)  
RFP NNC17ZFD015R

### **Procurement History/Description**

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The National Aeronautics and Space Administration (NASA) has a requirement for construction, maintenance, environmental, and testing services (COMETS) to support the mission requirements of the NASA Glenn Research Center (GRC). The COMETS procurement is a follow-on contract to the previous Construction Management Inspection Surveying, and Testing (CMIST) Services, NNC13BA02B, which provided similar services. This contract will include the following services:

- **Facility Management**
  - Construction Management
  - Facility Project Management
  - Construction Inspection
  - Building Management
  - Maintenance Management
  - Safety, Environmental and Occupational Health Coordination
  - Fire Protection Support
  - Energy Management Support
  - Surveying
  - GMS Administration
  - GMS Design
  - IDIQ- Discrete Tasks
- **Environmental Management**
  - Environmental Management System (EMS)
  - Emergency Planning and Community Right-to-Know
  - Implementation of the Clean Air Act
  - Implementation of remedial investigations and remedial actions
  - Implementation of NEPA
  - Floodplain and Wetlands Management
  - Endangered and Threatened Species and Pest Control
  - Implementation of Clean Water Act
  - Environmental Spill, Mishap and Incident Response
  - Spill Prevention Control and Countermeasures Plan
  - AST and UST Program Implementation
  - Sustainable Acquisition and Pollution Prevention
  - Waste Management
  - Drinking Water Program
  - IDIQ- Discrete Tasks

To accomplish this requirement, the Government intends to award a Cost Plus Fixed Fee (CPFF) – Indefinite Delivery, Indefinite Quantity (IDIQ) contract. The period of performance (POP) will include an eighteen (18) month base period, one twenty-four (24) month option period, and one eighteen (18) month option period. The POP will also include a thirty (30) day phase-in. The North American Industry Classification System (NAICS) code and small business size standard are 541330 – Engineering Services and \$15 million, respectively. This procurement was issued as a total Small Business Administration 8(a) small business set-aside.

A Sources Sought Notice was issued on February 3, 2017. Responses to the Sources Sought synopsis were received from thirteen (13) companies. A draft Request for Proposal (RFP) was issued on May 4, 2017. An Industry Day Event was held at GRC on May 22, 2017. Thirteen (13) companies were in attendance. The Final RFP was issued on June 13, 2017. Three (3) proposals were timely received by July 21, 2017. After an initial evaluation, all three proposals were considered initially acceptable.

Proposals were submitted by the following offerors (listed in alphabetical order):

- **Firelake-Arrowhead NASA Services**
- **Mission Technologies, Inc. (MTech)**
- **QCS-Visionary, LLC (QV)**

#### **Evaluation Criteria/Procedures**

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The proposals were evaluated by a Source Evaluation Board (SEB) in accordance with Federal Acquisition Regulation (FAR) 15.3, “Source Selection,” NASA FAR Supplement (NFS) 1815.3, “Source Selection,” and the evaluation criteria included in the RFP.

The RFP provided that the Government may award a contract based on initial offers received without discussion. Additionally, award will be made to the responsible offeror whose proposal meets the requirements of the solicitation and provides the best value to the Government.

The RFP evaluation criteria consisted of the following factors: Mission Suitability, Relevant Experience and Past Performance, and Cost.

In accordance with the RFP, Mission Suitability, Relevant Experience and Past Performance, and Cost are approximately equal. However, Mission Suitability and Relevant Experience and Past Performance, when combined, are significantly more important than Cost.

#### **Volume I – Mission Suitability (1,000 points TOTAL)**

In accordance with the RFP, each proposal received a Mission Suitability score based on the following subfactors and associated numerical weights.

- Subfactor A: Understanding the Requirements (UTR) (500 points)
  - UTR1: Facility Management
  - UTR2: Environmental Management
  - UTR3: Site Assessment for Building Demolition Sample Task
- Subfactor B: Management Approach (MA) (400 points)
  - MA1: Management Plan
  - MA2: Organizational Structure/Partnering Approach

- MA3: Staffing, Recruitment, Retention, Training and Compensation
- Subfactor C: Phase-In Plan (PIP) (100 points)
  - PIP1: Phase-in Plan

## **Volume II – Relevant Experience and Past Performance**

In accordance with the RFP, the Relevant Experience and Past Performance factor was not numerically scored, but was evaluated using the Level of Confidence ratings as outlined in the RFP and NFS 1815.305(a)(2)(A).

The Relevant Experience and Past Performance factor was evaluated with consideration given to the following information:

- Past Performance Narrative (PPN)
- Past Performance Questionnaires (PPQ)
- Past Performance Databases (PPD)

## **Volume III – Cost/Price**

In accordance with the RFP, the Cost factor was not numerically scored. The cost evaluation was conducted in accordance with FAR 15.305(a)(1), FAR 15.404-1(b), and NFS 1815.404.

The cost evaluations included a comparison of proposed prices received in response to the solicitation; comparison of proposed prices with Independent Government Cost Estimate (IGCE); analysis of pricing information provided by the offeror; and the Government probable cost adjustment, as necessary.

## **Evaluation Process**

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For each proposal, Mission Suitability was independently evaluated by each voting member of the SEB. The members then met to establish consensus findings, adjectival ratings, and scoring.

Relevant Experience and Past Performance was evaluated by the Past Performance subcommittee. The Past Performance subcommittee assembled and evaluated past performance information in the three areas listed above. The subcommittee reported its findings to the SEB for review and consideration. The SEB then established consensus findings and a Level of Confidence rating for each offeror.

Cost was evaluated by the Cost/Price analyst. The proposal costs were reviewed for compliance with the RFP instructions, consistency with the technical approach, mathematical errors, and overall cost reasonableness. Field pricing support was requested from Defense Contract Management Agency (DCMA). An analysis was performed to establish the probable cost for each proposal.

The Government had developed an Independent Government Cost Estimate (IGCE) prior to the release of the RFP.

## **Initial Evaluation Results**

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The following is a summary of their Mission Suitability score, Level of Confidence rating, and probable Cost (as compared to the awardee) (listed in order of their Mission Suitability scores):

	<b>Mission Suitability (1,000 points)</b>	<b>Relevant Experience and Past Performance</b>	<b>Probable Cost</b>
<b>Firelake-Arrowhead NASA Services</b>	918	Very High Level of Confidence	Second Lowest
<b>QCS-Visionary, LLC (QV)</b>	562	Neutral	Highest
<b>Mission Technologies, Inc. (MTech)</b>	450	Very High Level of Confidence	Lowest

### **Competitive Range Determination**

In accordance with Section M.3 of the RFP entitled, "Source Selection Evaluation Factors," it was stated "discussions will be held only if award on the basis of initial offers is determined not to be in the Government's best interest." While the Government's intent was to award without discussions, it was determined that a competitive range was in the best interest of the Government.

Based on the results of the initial evaluation, a Competitive Range Determination was made on November 6, 2017. It was determined that Firelake-Arrowhead had the most highly rated proposal and was therefore included in the competitive range. The two remaining offerors, while addressing the requirements of the RFP, were not considered to have a reasonable chance of selection. Including these firms in the competitive range was not considered in the best interest of the Government or the firms.

On November 9, 2017, Firelake-Arrowhead was notified of their inclusion in the competitive range and MTech and QCS-Visionary were notified of their exclusion from the competitive range.

### **Discussions**

On November 13, 2017, the Government entered into discussions with Firelake-Arrowhead. The discussion focused on identified cost issues. The Government requested that Firelake-Arrowhead provide an interim Final Proposal Revision (iFPR) by November 17, 2017. The proposal was timely received. The Government evaluated the iFPR in accordance with Section M of the subject RFP. However, it was determined that cost issues remained. On November 27, 2017, the Government continued discussions with Firelake-Arrowhead. The Government then concluded discussions and requested that Firelake-Arrowhead provide a Final Proposal Revision (FPR) by December 1, 2017. Once again, the proposal was timely received. Over the subsequent weeks, the final proposal was evaluated in accordance with section M of the RFP. The final results are indicated below:

	<b>Mission Suitability (1,000 points)</b>	<b>Relevant Experience and Past Performance</b>	<b>Probable Cost</b>
<b>Firelake-Arrowhead NASA Services</b>	918	Very High Level of Confidence	\$52,448,249

### **Detailed Findings**

The detailed findings of the one (1) offeror who remained in the competitive range are included below:



## Firelake-Arrowhead NASA Services

### Volume I- Mission Suitability: 918 points

**In the Understanding the Requirements (UTR) Subfactor, Firelake-Arrowhead's proposal was rated "Excellent." The proposal contained three (3) Significant Strengths.**

The Firelake-Arrowhead proposal received a Significant Strength in UTR1 for demonstrating a significant, in-depth, and comprehensive understanding of the requirements of Facility Management. The proposal demonstrated an understanding of NASA Facility Division (FD) processes and roles and responsibilities and NASA GRC construction processes, procedures, systems, and functions. The proposal also provided an understanding through its discussion of specialized expertise and qualifications which exceeded the SOW requirements. The Firelake-Arrowhead proposal received a Significant Strength in UTR2 for demonstrating a significant, in-depth, and comprehensive understanding of the requirements of Environmental Management. The proposal demonstrated an understanding of NASA Environmental Management Office (EMO) processes and roles and responsibilities, the requirements of Environmental Management System (EMS), the environmental regulatory requirements as applicable to NASA GRC, and the IDIQ- Discrete Task processes, procedures, and tools. Additionally, Firelake-Arrowhead demonstrated an exceptional understanding of numerous areas of the SOW in UTR2. The Firelake-Arrowhead proposal received a Significant Strength in UTR3 for demonstrating a significant, in-depth, and comprehensive understanding of the construction and environmental regulatory requirements of the Sample Task. The proposal demonstrated understanding by providing a detailed discussion of the following: a Health and Safety Plan (HASP), field investigation and sampling activities, a staffing plan approach, a list and description of hazardous materials, a list of technical and managerial risks and mitigations, and environmental requirements such as Bureau of Underground Storage Tank Regulations (BUSTR), Resource Conservation and Recovery Act (RCRA), and the Clean Water Act.

**In the Management Approach (MA) Subfactor, Firelake-Arrowhead's proposal was rated "Excellent." The proposal contained two (2) Significant Strengths and one (1) Strength.**

The Firelake-Arrowhead proposal received a Significant Strength in MA1 for proposing a highly effective and complete overall management plan to manage the contract requirements. The plan included approaches to the following: management support; scheduling, assigning, and tracking multiple tasks simultaneously; accessing resources beyond those needed for day to day operations; responding to customer concerns and complaints; safety, health, and environmental management; and unique and innovative ideas. The Firelake-Arrowhead proposal received a Significant Strength in MA2 for proposing a highly effective and complete organizational structure/partnering approach to organizing the contract requirements. The proposal included an organizational structure with a clearly delineated a span of control, degree of autonomy, and lines of communication; a detailed organizational chart; and an in-depth description of key personnel. The proposal also provided a detailed description of their JV partnering approach, a thorough approach to addressing poor performance of any partners/subcontractors, and proposed a qualified Program Manager (PM) with work experience representing both facility management and environmental management. The Firelake-Arrowhead proposal received a Strength in MA3 for proposing an effective approach to obtaining and maintaining employee certifications.

**In the Phase-in Plan (PIP) Subfactor, Firelake-Arrowhead's proposal was rated "Good." The proposal contained one (1) Strength.**

The Firelake-Arrowhead proposal received a Strength in PIP for proposing an effective phase-in plan that addressed an approach to ensure continuity of services and to smoothly transition the planned work effort over a 30 calendar day period.

### **Volume II- Relevant Experience and Past Performance: "Very High Level of Confidence"**

Firelake-Arrowhead's proposal contained two (2) Significant Strengths and one (1) Strength. There were no Weaknesses or Significant Weaknesses identified. Firelake-Arrowhead received a Strength for having contracts that were similar in size, content, complexity, value, contract type, recency, and customer to the COMETS requirements. Four (4) contracts were determined to be Relevant and provided a past performance history in both facility management and environmental management. Firelake-Arrowhead received a Significant Strength for receiving "Excellent" (88%) and "Very Good" (12%) ratings from former clients in response to the PPQs on contracts considered relevant to the COMETS requirements. In addition, Firelake-Arrowhead received a Significant Strength for being rated "Exceptional" (100%) in the Contractor Performance Assessment Reporting System (CPARS) on contracts considered relevant to the COMETS requirements.

### **Volume III- Cost**

The probable cost was \$52,448,249 and was higher than the Independent Government Cost Estimate (IGCE).

### **Selection Briefing**

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A Source Selection Briefing which detailed the SEB findings was held on December 14, 2017. Prior to the briefing, the Source Selection Authority (SSA) was provided a full set of findings for the offeror that remained in the competitive range for review. Attendance at the briefing included the SSA, SEB voting members, SEB nonvoting members, and SEB Ex-Officio members. During the meeting, the overall evaluation process and findings on Mission Suitability, Relevant Experience and Past Performance, and Cost were presented and discussed. The following selection decision resulted from the Source Selection Briefing.

### **Selection Decision**

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Based on the information presented in the Source Selection Briefing, I fully understand the evaluation process used by the SEB, the SEB findings, and concur with the overall SEB evaluation and findings. I am in agreement with the findings and the evaluation results and take no exception to the actions or findings of the SEB. During the briefing, I provided the SEB with my independent judgement relative to the findings and asked questions regarding the information.

I understand relative to the three Evaluation Factors; Mission Suitability, Relevant Experience and Past Performance, and Cost; Mission Suitability, Relevant Experience and Past Performance, and Cost are approximately equal. I considered them all equally in my decision. I understand that Mission Suitability and Relevant Experience and Past Performance, when combined, are significantly more important than Cost. I also understand that the award should be made to the responsible offeror whose proposal meets the requirements of the RFP and provides the best value to the Government.

In the Mission Suitability Factor, Firelake-Arrowhead received 918 out of 1,000 points. Specifically, two subfactors were rated “Excellent” and the third was rated “Good.”

I agree with the SEB’s rating of “Excellent” for Firelake-Arrowhead’s response to Understanding the Requirements subfactor. I acknowledge that the proposal received three (3) Significant Strengths. I find that Firelake-Arrowhead demonstrated a significant and in-depth understanding of Facility Management and Environmental Management across nearly all areas of the Statement of Work. Additionally, I find that Firelake-Arrowhead demonstrating a significant and in-depth understanding of the requirements of the Sample Task. Based on these findings, I consider Firelake-Arrowhead to have provided an exceptional and overall comprehensive understanding of the technical requirements necessary to perform the work under the COMETS contract.

I note that during the briefing, the SEB considered a staffing approach in this area to further support an Understanding the Requirements element. However, I find that staffing is best considered under the Management Approach subfactor. In discussions with the SEB, I do not believe this impacted the overall UTR Significant Strength finding which was supported by numerous other standalone elements.

I agree with the SEB’s rating of “Excellent” for Firelake-Arrowhead’s response to the Management Approach subfactor. I acknowledge that the proposal received two (2) Significant Strengths and one (1) Strength. I find that Firelake-Arrowhead proposed a highly effective and complete overall management plan and organizational structure/partnering approach. I find that Firelake-Arrowhead also proposed an effective approach to obtaining and maintaining employee certifications. Based on these findings, I consider Firelake-Arrowhead to have provided a highly effective management approach.

I agree with the SEB’s rating of “Good” for Firelake-Arrowhead’s response to the Phase-in Plan subfactor. I acknowledge that the proposal received a Strength. I find that Firelake-Arrowhead proposed an effective phase-in plan that addressed an approach to ensure continuity of services. I believe this will increase the likelihood that the contract can be successfully transitioned within the allocated thirty (30) days with minimal disruption to the Government.

I find it also noteworthy that Firelake-Arrowhead received no Weaknesses or Significant Weaknesses throughout the whole Mission Suitability factor. In summary for the Mission Suitability Factor, I find that Firelake-Arrowhead provided a comprehensive response indicating its full capability to perform the technical requirements of the RFP.

I agree with the SEB’s “Very High Level of Confidence” rating for Firelake-Arrowhead’s Relevant Experience and Past Performance Factor. I note that the proposal received two (2) Significant Strengths and one (1) Strength. I find that Firelake-Arrowhead had multiple relevant contracts similar to the COMETS requirements, including work at GRC. The past performance history of providing both facility management and environmental management services is a positive indicator that greatly enhances the potential for the COMETS requirements to be performed successfully. I find that Firelake-Arrowhead received high ratings from customers in response to the PPQs. I also find that Firelake-Arrowhead received “Exceptional” ratings in CPARS.

I find that Firelake-Arrowhead has meaningful relevant experience and its overall successful past performance is deserving of the “Very High Level of Confidence” rating. I further find that this “Very High Level of Confidence” rating is a good indicator of future successful performance.

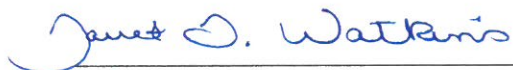
As for the Cost Factor, I find that Firelake-Arrowhead’s probable cost was higher than the IGCE, but still considered fair and reasonable by the Contracting Officer. I also understand that during discussions, the



Government focused on the proposal cost of Firelake-Arrowhead and as a result, reductions were made to the final cost proposal. I note that in accordance with the RFP, Mission Suitability and Relevant Experience and Past Performance when combined, are significantly more important than Cost.

In summary, I conclude that Firelake-Arrowhead provided an overall superior proposal relative to the evaluation factors identified in the RFP. I find that Firelake-Arrowhead was fully responsive to the requirements of the RFP. I find Firelake-Arrowhead to have an exceptional understanding of the requirements in addition to having highly effective management plan and phase-in plans. I also acknowledged Firelake-Arrowhead's relevant past experience and successful performance, which included work at GRC. I consider these items to be strong indicators of successful contract performance and to outweigh the higher total proposed cost. Lastly, I believe the combination of a superior technical proposal and proven past performance offers the best value to the Government.

Therefore, in accordance with the RFP requirements and acknowledging the relative importance of the evaluation criteria as stated earlier, I find that Firelake-Arrowhead provided the best overall response to the RFP and the best value to the Government. I therefore select Firelake-Arrowhead NASA Services to perform the Construction, Maintenance, Environmental, & Testing Services (COMETS) contract as outlined in the request for proposal, NNC17ZFD015R.



Janet L. Watkins  
Associate Director  
Source Selection Authority



(Date)

Concurrence:



Kurt A. Straub  
Procurement Officer



(Date)

**SOURCE SELECTION STATEMENT FOR THE NOIS II CONTRACT**  
**NASA Lyndon B. Johnson Space Center**  
**Solicitation Number 80JSC020R0030**

On May 6, 2020, I, along with other key officials of the National Aeronautics and Space Administration's (NASA) Johnson Space Center (JSC), met with members of the Streamlined Procurement Team (SLPT) appointed to evaluate proposals for the NASA Open Innovation Services 2 (NOIS2) solicitation (80JSC020R0030). Relevant portions of the SLPT's evaluation of proposals, and my decision on selection of the successful Offerors, is set forth in this Source Selection Statement. The final presentation charts represent the final source evaluation report and are herein incorporated by reference.

**I. BACKGROUND**

The NASA JSC Center of Excellence for Collaborative Innovation (CoECI) office is seeking to expand the capabilities and expertise it provides to NASA in the successful use of crowdsourcing. The NOIS2 acquisition is a follow-on procurement, which will provide an expanded set of crowdsourcing tools and methodologies to support NASA and other federal agencies. NOIS2 contractors are expected to execute public, crowd-based projects on their existing platforms and provide support services to administer those projects.

The NOIS2 acquisition was conducted under full and open competition and was assigned the North American Industry Classification System code 541990 - All Other Professional, Scientific, and Technical Services, with a Small Business Administration designated small business size standard of \$16.5M. NOIS2 will result in multiple awards of Indefinite Delivery/Indefinite Quantity (IDIQ) contracts with Firm-Fixed-Price (FFP) Task Orders (TO). NOIS2 awardees will be given a fair opportunity to compete for FFP TOs during the 5-year base period of performance. No phase-in period is required. The IDIQ guaranteed minimum is \$3,000 per awardee and the maximum to be awarded across all NOIS2 contracts is \$24.9 million.

A Sources Sought Synopsis, 80JSC019NOISII, was released on April 9, 2019, through the Federal Business Opportunities website. A Requirements Request for Information was issued on May 28, 2019, to conduct market research. The SLPT hosted a Virtual Industry Day presentation on June 5, 2019, followed by individual discussions with interested parties on June 6-7, 2019. The SLPT received capability statements from thirty-three (33) interested parties in response to the Synopsis; this information, along with market research and information from the individual discussions, was used to determine that a small business set-aside was not appropriate for the acquisition. However, TOs placed under the NOIS2 contract will be considered for small business set-asides, as appropriate. The deadline for submitting questions regarding the draft Request for Proposals (RFP) was October 25, 2019. In total, sixty-two (62) questions were received in response to the draft RFP. Answers were provided via Modification 8 to the Sources Sought Synopsis on November 26, 2019.

The NOIS2 final RFP 80JSC020R0030 was issued on December 3, 2019, via the beta.sam.gov website, with a proposal due date of January 10, 2020. A Virtual Preproposal Conference was held on December 10, 2019. Amendment 1 to the RFP was issued on December 19, 2019, to

update the proposal submission instructions, extend the due date for RFP questions to December 23, 2019, and extend the proposal due date to January 22, 2020. RFP Amendment 2 was posted on January 9, 2020, to release the RFP Questions and Answers (Q&A) and update the RFP in response to the Q&A. A total of two (2) amendments were released prior to receipt of proposals on January 22, 2020, at 1:30 PM Eastern Time.

## **II. EVALUATION PROCEDURES**

Pursuant to the NOIS2 RFP's evaluation scheme, and in accordance with Federal Acquisition Regulation (FAR) 16.504(c), NASA intends to award multiple NOIS2 base contracts to each and all qualifying Offerors. As provided in Section 6 of the NOIS2 RFP, a qualifying Offeror is one who is determined to be a responsible source, submits a technically "Acceptable" proposal under the Technical Acceptability Factor, whose proposal conforms to the requirements of the solicitation, and provides the Contracting Officer with no reason to believe it would be likely to offer other than fair and reasonable pricing.

The RFP indicated that the SLPT would perform an initial evaluation to determine the acceptability of the proposals in accordance with NASA FAR Supplement (NFS) 1815.305-70, Identification of Unacceptable Proposals. Following the initial review, the RFP indicated that all remaining proposals would be evaluated solely against the Technical Acceptability Factor.

In accordance with FAR 15.304(c)(3)(iii), the Contracting Officer determined that past performance is not an appropriate evaluation factor for the NOIS2 base contracts. Rather, per FAR 9.104-1, the Contracting Officer would assess Offerors' performance records as part of the required responsibility determination. Past performance may be considered as an evaluation factor for future Requests for Task Plans under the NOIS2 base contracts. Additionally, in accordance with Section 825 of the National Defense Authorization Act for Fiscal Year 2017 and NASA Procurement Class Deviation 18-02, the Contracting Officer determined that price would not be considered as an evaluation factor. Rather, NOIS2 base contract holders' pricing will be considered in a competitive environment for future Requests for Task Plans under the NOIS2 base contracts.

Under the Technical Acceptability Factor, Offerors were required to provide a response to the Technical Understanding of Requirements and Sample Project Plan. As part of its response to the Technical Understanding of Requirements, an Offeror was required to provide an overview of its business model, identify the specific crowdsourcing method(s) used to successfully deliver the products and services identified in the Statement of Work (SOW), describe the end product(s) and service(s) from the SOW that the Offeror could successfully deliver, and provide a detailed description of how the Offeror's specific crowdsourcing method(s) would meet each of the thirteen (13) TO execution elements listed in Section 3.5 of the SOW. Offerors were also required to provide a detailed Sample Project Plan that demonstrated the Offeror's standard delivery approach.

Technical Acceptability was assessed in accordance with Section 6 of the RFP by assigning ratings of "Acceptable," "Potentially Acceptable," or "Unacceptable" to each Offeror's Technical Acceptability volume. To be considered "Acceptable," the Offeror's Technical

Understanding of Requirements and Sample Project Plan would be at a level of understanding, reasonableness, feasibility and completeness where associated risks do not jeopardize an acceptable level of contract performance. A proposal would be rated “Unacceptable” where any area of the proposal was unacceptable based on the demonstration of understanding, and level of reasonableness, feasibility, and completeness such that associated risks do jeopardize an acceptable level of contract performance. A proposal would be rated “Potentially Acceptable” when after the initial evaluation, the proposal did not fully meet the definition for an “Acceptable” or “Unacceptable” rating and the Government anticipates that additional information obtained during discussions could result in a proposal rating of “Acceptable.”

The NOIS2 RFP stated that the Government may elect to award contract(s) without discussions to the technically “Acceptable” responsible Offeror(s) or elect to establish a competitive range and conduct discussions with the most highly rated Offeror(s). If discussions were held and Final Proposal Revisions (FPR) were received, all proposals remaining in the competitive range would receive a final rating against the Technical Acceptability Factor as either “Acceptable” or “Unacceptable” only.

Offerors were also required to demonstrate present responsibility to be considered for award, in accordance with the standards and procedures set forth in FAR Subpart 9.1. Offerors were required to provide Organizational Conflict of Interest Information, information demonstrating a satisfactory performance record, and any additional information considered necessary to demonstrate an offeror’s status as a responsible offeror under FAR 9.104.

### **III. EVALUATION OF INITIAL PROPOSALS**

The Government received twenty-seven (27) timely proposals in response to the NOIS2 RFP. Proposals were received from the following companies and are listed in alphabetical order:

1. AEXA Aerospace LLC
2. Agorize Innovation Inc.
3. Appirio Inc.
4. Assisted Development LLC
5. Black Ink Creative Partners LLC
6. Business Talent Group LLC
7. Carahsoft Technology Corp.
8. The Common Pool LLC
9. Crowdplat Inc.
10. Driven Data, Inc.
11. Ensemble Government Services, LLC
12. Ezassi Inc.
13. Freelance Labs Inc.
14. Freelancer International PTY LTD
15. Grant Thornton Public Sector LLC
16. Guidehouse LLP
17. HeroX PBC
18. Luminary Labs LLC

19. Maven Research Inc.
20. NSTI LLC (dba TechConnect)
21. SciArt Exchange
22. Sensis Inc.
23. Submittable Holdings, Inc.
24. Tech7 Consulting LLC
25. V3Main Technologies Inc.
26. Vanguard Solutions LLC
27. Zylter Inc.

The SLPT evaluated proposals in accordance with Section 6 of the NOIS2 RFP, Evaluation - Streamlined Procurement Evaluation Factors for Award. All proposals were determined to be acceptable under NFS 1815.305-70. All proposals were then reviewed for compliance with Section 5.1, Proposal Arrangement, Page Limitations, Copies, and Due Dates. The SLPT noted that Zylter's Technical Acceptability volume contained forty-five (45) pages, which exceeded the 15-page limit identified in Table 5-1 in the solicitation. The SLPT determined that the Offeror exceeded the overall page limit for the Technical Acceptability Factor by thirty (30) pages. As a result, the last thirty (30) pages were removed from the proposal and returned to the Offeror and no evaluation was conducted on those pages. All proposals were subsequently evaluated in accordance with the Technical Acceptability Factor, as stated in the RFP. In determining the appropriate Technical Acceptability rating for each Offeror, the SLPT engaged in a holistic assessment of each Offeror's proposal with meaningful consideration of the demonstration of understanding, reasonableness, feasibility, and completeness in the Offeror's response to the Technical Understanding of Requirements and Sample Project Plan.

#### **IV. COMPETITIVE RANGE**

The results of the initial evaluation were presented to me at the Competitive Range meeting on March 3, 2020. The results as presented at the Competitive Range meeting are summarized below:

<b>OFFEROR</b>	<b>TECHNICAL ACCEPTABILITY</b>
<b>AEXA Aerospace LLC</b>	Unacceptable
<b>Agorize Innovation Inc.</b>	Acceptable
<b>Appirio Inc.</b>	Acceptable
<b>Assisted Development LLC</b>	Unacceptable
<b>Black Ink Creative Partners LLC</b>	Unacceptable
<b>Business Talent Group LLC</b>	Acceptable
<b>Carahsoft Technology Corp.</b>	Acceptable
<b>The Common Pool LLC</b>	Acceptable

<b>Crowdplat Inc.</b>	Acceptable
<b>Driven Data, Inc.</b>	Acceptable
<b>Ensemble Government Services, LLC</b>	Acceptable
<b>Ezassi Inc.</b>	Unacceptable
<b>Freelance Labs Inc.</b>	Acceptable
<b>Freelancer International PTY LTD</b>	Acceptable
<b>Grant Thornton Public Sector LLC</b>	Unacceptable
<b>Guidehouse LLP</b>	Acceptable
<b>HeroX PBC</b>	Acceptable
<b>Luminary Labs LLC</b>	Acceptable
<b>Maven Research Inc.</b>	Acceptable
<b>NSTI LLC (dba TechConnect)</b>	Acceptable
<b>SciArt Exchange</b>	Acceptable
<b>Sensis Inc.</b>	Acceptable
<b>Submittable Holdings, Inc.</b>	Unacceptable
<b>Tech7 Consulting LLC</b>	Acceptable
<b>V3Main Technologies Inc.</b>	Unacceptable
<b>Vanguard Solutions LLC</b>	Acceptable
<b>Zylter Inc.</b>	Unacceptable

All Offerors rated as technically “Acceptable” submitted a proposal that demonstrated a level of understanding, completeness, feasibility and reasonableness where there were no associated risks that would jeopardize an acceptable level of contract performance.

I concurred with the Contracting Officer’s Determination that the proposals submitted by the following Offerors were not the most highly rated in accordance with the evaluation criteria and were excluded from the competitive range:

- AEXA Aerospace
- Assisted Development
- Black Ink Creative Partners
- Ezassi Inc.
- Grant Thornton Public Sector LLC
- Submittable Holdings, Inc.
- V3Main Technologies Inc.

- Zylter Inc.

I also concurred with the Contracting Officer's Determination that the remaining nineteen (19) Offerors' proposals were the most highly rated and were included in the competitive range:

- Agorize Innovation Inc.
- Appirio Inc.
- Business Talent Group LLC
- Carahsoft Technology Corp.
- The Common Pool LLC
- Crowdplat Inc.
- Driven Data Inc.
- Ensemble Government Services, LLC
- Freelance Labs Inc.
- Freelancer International PTY LTD
- Guidehouse LLP
- HeroX PBC
- Luminary Labs LLC
- Maven Research Inc.
- NSTI LLC (dba TechConnect)
- SciArt Exchange
- Sensis Inc.
- Tech7 Consulting LLC
- Vanguard Solutions LLC

I considered awarding without discussions; however, multiple Offerors had informalities in their model contracts, which, although minor, were necessary to clarify during discussions. To ensure complete coverage of the NOIS2 scope of work and in order to increase competition and achieve best value by awarding to multiple vendors, I agreed with the SLPT that it would be in the best interest of the government to enter into discussions with Offerors whose proposals were the most highly rated.

I noted that the NOIS2 RFP mandates that the solicitation remain open during the life of the contract and anticipates that the Agency may make additional awards at any time through an "on-ramp" process. The on-ramp process allows NASA, at its discretion, to add vendors in the future as a way to ensure robust competition across all areas of the NOIS2 SOW during the period of performance of the contract. Through this on-ramp process, potential Offerors would be evaluated under the same factors outlined in Sections 4-6 of the NOIS2 RFP.

All Offerors were informed individually of their inclusion in or exclusion from the competitive range on March 18, 2020. The SLPT conducted written discussions with each Offeror in the competitive range and provided the opportunity for verbal discussions, upon request. At the conclusion of discussions on April 22, 2020, each Offeror was provided an opportunity to submit its FPR. All nineteen (19) Offerors in the competitive range provided complete and timely FPRs by the delivery due date of April 28, 2020.

## **V. EVALUATION OF FINAL PROPOSAL REVISIONS**

The SLPT evaluated each FPR in accordance with the RFP instructions. After evaluating all submitted FPRs, the SLPT determined that all Offerors had sufficiently dispositioned all of the items addressed during discussions to the satisfaction of the SLPT. In addition, none of the Offerors submitted changes in their Technical volumes. The SLPT therefore made no changes to the Offerors' initial ratings for the Technical Acceptability Factor. As a result, all nineteen (19) Offerors' ratings for the Technical Acceptability Factor remained "Acceptable." A summary for each Offeror is provided below:

### **A. Technical Acceptability**

#### **Agorize Innovation**

Under the evaluation standards set forth in the RFP, the SLPT determined that Agorize Innovation's rating for the Technical Acceptability Factor was Acceptable. The SLPT found that Agorize Innovation's Technical Understanding of Requirements and Sample Project Plan demonstrated a level of understanding, completeness, feasibility and reasonableness where there were no associated risks that would jeopardize an acceptable level of contract performance.

#### **Appirio**

Under the evaluation standards set forth in the RFP, the SLPT determined that Appirio's rating for the Technical Acceptability Factor was Acceptable. The SLPT found that Appirio's Technical Understanding of Requirements and Sample Project Plan demonstrated a level of understanding, completeness, feasibility and reasonableness where there were no associated risks that would jeopardize an acceptable level of contract performance.

#### **Business Talent Group**

Under the evaluation standards set forth in the RFP, the SLPT determined that Business Talent Group's rating for the Technical Acceptability Factor was Acceptable. The SLPT found that Business Talent Group's Technical Understanding of Requirements and Sample Project Plan demonstrated a level of understanding, completeness, feasibility and reasonableness where there were no associated risks that would jeopardize an acceptable level of contract performance.

#### **Carahsoft Technology**

Under the evaluation standards set forth in the RFP, the SLPT determined that Carahsoft Technology's rating for the Technical Acceptability Factor was Acceptable. The SLPT found that Carahsoft Technology's Technical Understanding of Requirements and Sample Project Plan demonstrated a level of understanding, completeness, feasibility and reasonableness where there were no associated risks that would jeopardize an acceptable level of contract performance.

#### **The Common Pool**

Under the evaluation standards set forth in the RFP, the SLPT determined that The Common Pool's rating for the Technical Acceptability Factor was Acceptable. The SLPT found that The Common Pool's Technical Understanding of Requirements and Sample Project Plan



demonstrated a level of understanding, completeness, feasibility and reasonableness where there were no associated risks that would jeopardize an acceptable level of contract performance.

### **Crowdplat**

Under the evaluation standards set forth in the RFP, the SLPT determined that Crowdplat's rating for the Technical Acceptability Factor was Acceptable. The SLPT found that Crowdplat's Technical Understanding of Requirements and Sample Project Plan demonstrated a level of understanding, completeness, feasibility and reasonableness where there were no associated risks that would jeopardize an acceptable level of contract performance.

### **Driven Data**

Under the evaluation standards set forth in the RFP, the SLPT determined that Driven Data's rating for the Technical Acceptability Factor was Acceptable. The SLPT found that Driven Data's Technical Understanding of Requirements and Sample Project Plan demonstrated a level of understanding, completeness, feasibility and reasonableness where there were no associated risks that would jeopardize an acceptable level of contract performance.

### **Ensemble Government Services**

Under the evaluation standards set forth in the RFP, the SLPT determined that Ensemble Government Services' rating for the Technical Acceptability Factor was Acceptable. The SLPT found that Ensemble Government Services' Technical Understanding of Requirements and Sample Project Plan demonstrated a level of understanding, completeness, feasibility and reasonableness where there were no associated risks that would jeopardize an acceptable level of contract performance.

### **Freelance Labs**

Under the evaluation standards set forth in the RFP, the SLPT determined that Freelance Labs' rating for the Technical Acceptability Factor was Acceptable. The SLPT found that Freelance Labs' Technical Understanding of Requirements and Sample Project Plan demonstrated a level of understanding, completeness, feasibility and reasonableness where there were no associated risks that would jeopardize an acceptable level of contract performance.

### **Freelancer International**

Under the evaluation standards set forth in the RFP, the SLPT determined that Freelancer International's rating for the Technical Acceptability Factor was Acceptable. The SLPT found that Freelancer International's Technical Understanding of Requirements and Sample Project Plan demonstrated a level of understanding, completeness, feasibility and reasonableness where there were no associated risks that would jeopardize an acceptable level of contract performance.

### **Guidehouse**

Under the evaluation standards set forth in the RFP, the SLPT determined that Guidehouse's rating for the Technical Acceptability Factor was Acceptable. The SLPT found that Guidehouse's Technical Understanding of Requirements and Sample Project Plan demonstrated a level of understanding, completeness, feasibility and reasonableness where there were no associated risks that would jeopardize an acceptable level of contract performance.

**HeroX**

Under the evaluation standards set forth in the RFP, the SLPT determined that HeroX's rating for the Technical Acceptability Factor was Acceptable. The SLPT found that HeroX's Technical Understanding of Requirements and Sample Project Plan demonstrated a level of understanding, completeness, feasibility and reasonableness where there were no associated risks that would jeopardize an acceptable level of contract performance.

**Luminary Labs**

Under the evaluation standards set forth in the RFP, the SLPT determined that Luminary Labs' rating for the Technical Acceptability Factor was Acceptable. The SLPT found that Luminary Labs' Technical Understanding of Requirements and Sample Project Plan demonstrated a level of understanding, completeness, feasibility and reasonableness where there were no associated risks that would jeopardize an acceptable level of contract performance.

**Maven Research**

Under the evaluation standards set forth in the RFP, the SLPT determined that Maven Research's rating for the Technical Acceptability Factor was Acceptable. The SLPT found that Maven Research's Technical Understanding of Requirements and Sample Project Plan demonstrated a level of understanding, completeness, feasibility and reasonableness where there were no associated risks that would jeopardize an acceptable level of contract performance.

**NSTI**

Under the evaluation standards set forth in the RFP, the SLPT determined that NSTI's rating for the Technical Acceptability Factor was Acceptable. The SLPT found that NSTI's Technical Understanding of Requirements and Sample Project Plan demonstrated a level of understanding, completeness, feasibility and reasonableness where there were no associated risks that would jeopardize an acceptable level of contract performance.

**SciArt Exchange**

Under the evaluation standards set forth in the RFP, the SLPT determined that SciArt Exchange's rating for the Technical Acceptability Factor was Acceptable. The SLPT found that SciArt Exchange's Technical Understanding of Requirements and Sample Project Plan demonstrated a level of understanding, completeness, feasibility and reasonableness where there were no associated risks that would jeopardize an acceptable level of contract performance.

**Sensis**

Under the evaluation standards set forth in the RFP, the SLPT determined that Sensis' rating for the Technical Acceptability Factor was Acceptable. The SLPT found that Sensis' Technical Understanding of Requirements and Sample Project Plan demonstrated a level of understanding, completeness, feasibility and reasonableness where there were no associated risks that would jeopardize an acceptable level of contract performance.

**Tech7 Consulting**

Under the evaluation standards set forth in the RFP, the SLPT determined that Tech7 Consulting's rating for the Technical Acceptability Factor was Acceptable. The SLPT found that Tech7 Consulting's Technical Understanding of Requirements and Sample Project Plan

demonstrated a level of understanding, completeness, feasibility and reasonableness where there were no associated risks that would jeopardize an acceptable level of contract performance.

### **Vanguard Solutions**

Under the evaluation standards set forth in the RFP, the SLPT determined that Vanguard Solutions' rating for the Technical Acceptability Factor was Acceptable. The SLPT found that Vanguard Solutions' Technical Understanding of Requirements and Sample Project Plan demonstrated a level of understanding, completeness, feasibility and reasonableness where there were no associated risks that would jeopardize an acceptable level of contract performance.

## **B. Contractor Responsibility**

In accordance with FAR 9.103(b) and 9.104, and in accordance with the NOIS2 RFP, the Contracting Officer affirmatively determined that all nineteen (19) Offerors are responsible prospective contractors.

## **C. Summary**

OFFEROR	Responsibility	Technical Acceptability
Agorize Innovation Inc.	√	Acceptable
Appirio Inc.	√	Acceptable
Business Talent Group LLC	√	Acceptable
Carahsoft Technology Corp.	√	Acceptable
The Common Pool LLC	√	Acceptable
Crowdplat Inc.	√	Acceptable
Driven Data Inc.	√	Acceptable
Ensemble Government Services, LLC	√	Acceptable
Freelance Labs Inc.	√	Acceptable
Freelancer International PTY LTD	√	Acceptable

Guidehouse LLP	√	Acceptable
HeroX PBC	√	Acceptable
Luminary Labs LLC	√	Acceptable
Maven Research Inc.	√	Acceptable
NSTI LLC (dba TechConnect)	√	Acceptable
SciArt Exchange	√	Acceptable
Sensis Inc.	√	Acceptable
Tech7 Consulting LLC	√	Acceptable
Vanguard Solutions LLC	√	Acceptable

## **VI. SOURCE SELECTION DECISION**

On May 6, 2020, the SLPT presented and discussed with me its evaluation observations for each Offeror. Based on the information presented, I fully understand the evaluation process and the SLPT observations. I noted that, per the RFP, the Government intends to make an award to each and all qualifying Offerors, and that a qualifying Offeror is one who is determined to be a responsible source, submits a technically “Acceptable” proposal under the Technical Acceptability Factor, whose proposal conforms to the requirements of the solicitation, and provides the Contracting Officer with no reason to believe it would be likely to offer other than fair and reasonable pricing. The SLPT’s observations that were presented to me were consistent with the evaluation criteria in the NOIS2 RFP. I questioned the SLPT with regard to key aspects of its evaluation methodology in order to be certain I fully understood this rationale and the underlying qualitative aspects of the Offerors’ proposals. Finally, I considered the inputs and opinions of key personnel and advisors who had heard the presentation and who have responsibility relative to the procurement.

I reviewed the SLPT’s observations with respect to the Technical Acceptability Factor for each Offeror and I questioned the SLPT with respect to whether all nineteen (19) Offerors in the competitive range provided a Technical volume that fully addressed both the Technical Understanding of Requirements and the Sample Project Plan, as required by the RFP. I agree with the SLPT that all issues noted in the competitive range discussions were resolved and all nineteen (19) Offerors fully addressed all aspects of the Technical Understanding of Requirements and Sample Project Plan in their proposals. The SLPT also indicated that each proposal rated “Acceptable” under the Technical Acceptability Factor fully addressed all thirteen (13) TO execution elements, as required by the RFP, and demonstrated that they understood the government’s minimum requirements for public, crowd-based methodologies. Further, the SLPT stated that it identified no risks in the Technical volumes of these Offerors’ proposals.

The fact that all nineteen (19) Offerors fully and completely addressed all RFP requirements shows me that they all understand the requirements, and provides me with confidence that all tasks will be completed successfully. I concur with the SLPT for each Offeror's respective Technical Acceptability rating, finding that each of the nineteen (19) Offerors provided a Technical Understanding of Requirements and Sample Project Plan, which demonstrated a level of understanding, completeness, feasibility, and reasonableness where there were no associated risks that would jeopardize an acceptable level of contract performance. I determined that the SLPT's evaluation record and its "Acceptable" rating for all nineteen (19) Offerors had a rational basis and were valid for the purpose of making a selection decision.

The SLPT found that all nineteen (19) proposals conform to the requirements of the solicitation, and I agree with that assessment. In addition, the Contracting Officer has determined that these Offerors are responsible sources, in accordance with FAR Part 9, and I have no reason to question that determination. I understand that part of the responsibility determination is verifying a company's financial resources to perform, integrity and business ethics, and accounting/operations controls. Those things, coupled with the fact that all TOs issued under these contracts will be awarded in a competitive environment, gives me further confidence that prices obtained during the TO competitions will be fair and reasonable. Per Section 6 of the RFP, NASA intends to award to each and all "qualifying offerors." A qualifying offeror is "one who is determined to be a responsible source, submits a technically "Acceptable" proposal under the Technical Acceptability Factor, whose proposal conforms to the requirements of the solicitation, and provides the Contracting Officer with no reason to believe it would be likely to offer other than fair and reasonable pricing. I hereby agree that all nineteen (19) of the Offerors in the competitive range are qualifying offerors.

Based upon the evaluation results, my own independent judgment and assessment, and the terms of the RFP, I consider it to be in the Agency's best interest to make award to all nineteen (19) Offerors in the competitive range. Cumulatively, these nineteen (19) firms offer coverage across all methodologies specified in Section 3.2 and all end products and services specified in Section 3.2.1 of the NOIS2 RFP. NASA has estimated that these firms have over one hundred million community members among them, dramatically increasing the likelihood that CoECI will be able to expand the capabilities and expertise it provides to NASA through crowdsourcing. In light of NASA's desire to utilize crowdsourcing more broadly, and consistent with the RFP's preference for multiple awards, I find that the award of NOIS2 base contracts to these nineteen (19) firms will greatly increase competition and will provide NASA with access to a larger, more diverse online community, thereby increasing the likelihood that NASA will obtain needed services, ideas, and content through crowdsourcing.

Thus, I select for award the following firms for NOIS2 base contracts:

Agorize Innovation Inc.  
Appirio Inc.  
Business Talent Group LLC  
Carahsoft Technology Corp.  
The Common Pool LLC  
Crowdplat Inc.

Driven Data, Inc.  
Ensemble Government Services, LLC  
Freelance Labs Inc.  
Freelancer International PTY LTD  
Guidehouse LLP  
HeroX PBC  
Luminary Labs LLC  
Maven Research Inc.  
NSTI LLC (dba TechConnect)  
SciArt Exchange  
Sensis Inc.  
Tech7 Consulting LLC  
Vanguard Solutions LLC

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Stephen H. Janney  
Source Selection Authority



## Source Selection Statement

NextSTEP-2 Appendix H: Human Landing System  
Broad Agency Announcement  
NNH19ZCQ001K\_APPENDIX-H-HLS

National Aeronautics and Space Administration

April 28, 2020

## Introduction

In my role as the Source Selection Authority (SSA) for the National Aeronautics and Space Administration (NASA or Agency) Human Landing System (HLS) procurement, for the reasons set forth below, I select the following firms for HLS contract awards: Blue Origin Federation, LLC, Dynetics, Inc., and Space Exploration Technologies Corp. This selection statement documents my independent analysis and judgment as the SSA, and constitutes my final determination on this matter.

## Procurement Description

The purpose of this procurement is to facilitate the rapid development and demonstration of an HLS that will deliver the first woman, and next man, to the Moon no later than 2024. In addition, commercial and international partners will be able to leverage the new capabilities developed through this initiative for the execution of other missions over the coming decades, including the potential to leverage them in regularly recurring hardware and services procurements. NASA recognizes the need to foster the commercial development of expertise and technologies required for reusable, sustainable, and human-rated landing systems, and that these technologies are likely to have significant commercial applications beyond NASA.

To that end, NASA is employing a public-private partnership model for this procurement, using fixed-price research and development contracts; industry, with NASA's support and expertise, will lead the development and demonstration activities. Investments such as these by the private sector are expected to grow as additional market opportunities are identified, and activities expand from science and exploration to include resource utilization and other commercial activities for the benefit of both the public and private sectors. The HLS procurement is thus a critical component of fulfilling the goals articulated in Space Policy Directive-1, and NASA's plans to once again establish U.S. preeminence on and around the Moon and accelerate the advancement of technologies that have broad and valuable utility beyond the HLS Program.

## Procedural History

NASA released the HLS solicitation (as amended) on October 25, 2019. Five offerors, listed below in alphabetical order, submitted timely proposals by the due date of November 5, 2019.

- Blue Origin Federation, LLC (Blue Origin)
- The Boeing Corporation (Boeing)
- Dynetics, Inc. (Dynetics)
- Space Exploration Technologies Corp. (SpaceX)
- Vivace Corp. (Vivace)

Based upon the proposals submitted and the evaluation thereof, three of these offerors—Blue Origin, Dynetics, and SpaceX—currently remain eligible for selection and award.<sup>1</sup>

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<sup>1</sup> Consistent with the evaluation methodology provided within the HLS solicitation, I removed Boeing and Vivace from further consideration for award earlier in the source selection process.



After receipt of proposals, the Source Evaluation Panel (SEP) appointed to evaluate HLS proposals, comprised of three sub-panels (one each for Technical, Price, and Management), began its evaluation.

On February 7, 2020, following my determination that it would be in the Agency's best interests to do so, the Contracting Officer opened discussions with the offerors that remained in the competition at that time. In response, these offerors submitted timely revised proposals by the due date of February 23.

Following the submission of revised HLS proposals, I asked the SEP Chairperson to present a checkpoint briefing to me providing the SEP's assessment of the selectability of these revised proposals (i.e., whether the proposals contained any deficiencies or other issues that rendered them ineligible for contract award). On February 26, the SEP Chairperson provided this briefing. Therein, he presented the SEP's preliminary assessment that although the three offerors' respective revised proposals had unique technical merit and were selectable, NASA's budget profile for the HLS base period of performance did not support the award of a contract to all of these offerors at the firm fixed prices they had proposed. Specifically, the SEP noted that there was a significant shortfall between NASA's Fiscal Year 2020 (FY20) HLS budget and the combined total of the three offerors' proposed FY20 payments.

The HLS acquisition strategy contemplates having up to four prime contractors during the base period, with future down-selections from among these contractors occurring at the time of option awards. This strategy is intended to create the most competitive environment practicable, maximizing the likelihood of successful development that will culminate in crewed demonstration missions. Thus, in light of the checkpoint evaluation results, and in an effort to effectuate the HLS acquisition strategy, the SEP Chairperson recommended that I make initial, conditional (i.e., non-final) selections for potential contract award of the three selectable offerors in order to authorize limited, post-selection negotiations. As recommended, these negotiations were to be narrowly tailored to allow the offerors an opportunity to reduce their prices and negotiate other minor, outstanding contract terms and conditions. On April 15, I concurred with this recommendation, and determined that it would be in the Agency's best interests to make initial, conditional selections of Blue Origin, Dynetics, and SpaceX to enable the Contracting Officer to engage in post-selection negotiations with these offerors.

On April 15, the Contracting Officer opened post-selection negotiations. In response, NASA received timely second revised proposals from all three firms by the due date of April 19. Thereafter, on April 24, the SEP, led by the SEP Chairperson and the sub-panel leads, presented its full and final consensus evaluation results for each of the three remaining offerors to me and other senior NASA officials (SEP Briefing). This briefing provided an opportunity for the SEP to fully explain its final assessment of each of the proposals, and for me and other senior NASA leaders to ask questions and receive answers directly from the Agency experts that comprised the SEP.

## Proposal Evaluation Methodology Overview

NASA conducted this procurement as a firm fixed price Broad Agency Announcement (BAA) in accordance with Federal Acquisition Regulation (FAR) 6.102(d)(2) and 35.016. BAAs are not negotiated procurements conducted on the basis of competitive proposals. As such, NASA did not conduct a comparative analysis

and trade-off amongst proposals. Rather, each proposal was evaluated on its own individual merits. However, in accordance with section 5.3.1.3 of the BAA, although proposals may not be directly compared to one another, or any trade-off determinations made between or among proposals, if multiple proposals have been otherwise evaluated relatively similarly, I am permitted to consider programmatic relevance/balance and/or the availability of funds to make award decisions. Programmatic relevance is determined by the contribution of the proposed work to the Agency's scientific, technical, and human exploration programmatic objectives.

Consistent with FAR 35.016(e), the primary basis for selecting one or more proposals for award is technical, importance to Agency programs, and funds availability, as delineated through the BAA's evaluation factors and areas of focus. The BAA establishes three factors for evaluation: Technical (Factor 1), Price (Factor 2), and Management (Factor 3). These factors are in descending order of importance to NASA: Factor 1 is more important than Factor 2, and Factor 2 is more important than Factor 3. Factors 1 and 3, when combined, are significantly more important than Factor 2.

Within Factors 1 and 3, the BAA establishes specific areas of focus for evaluation. Findings (e.g., strengths, weaknesses) created for the areas of focus were considered in totality by the SEP to arrive at a single adjectival rating for each factor. Areas of focus did not receive their own adjectival ratings. In determining adjectival ratings for Factors 1 and 3, all areas of focus were considered as approximately of equal importance within their respective factor. Table 1 contains the evaluation factors and areas of focus.

<b>Evaluation Factor</b>	<b>Area of Focus</b>
<b>Factor 1: Technical Approach</b>	Technical Design Concept
	Development, Schedule, and Risk
	Verification, Validation, and Certification
	Insight
	Launch and Mission Operations
	Sustainability
	Early System Demonstrations
<b>Factor 2: Total Evaluated Price</b>	No focus areas
<b>Factor 3: Management Approach</b>	Organization and Management
	Schedule Management
	Risk Reduction
	Commercial Approach
	Past Performance
	Small Business Subcontracting Plan
	Data Rights

*Table 1: Evaluation Factors and Areas of Focus*

## Source Selection Analysis

After receiving the SEP Briefing, it is my assessment that the SEP conducted their evaluation, and created their resultant findings, adjectival ratings, and award recommendations in accordance with the procedures and evaluation criteria set forth in the HLS solicitation and its accompanying evaluation plan. I have independently reviewed this evaluation and conclude that each finding, rating, and recommendation has a rational basis, is well documented, and provides sufficient information regarding the qualitative merits and drawbacks of each offeror's proposal to support my selection determinations herein. As such, I fully concur with, and adopt, the SEP's evaluation as documented in the SEP Briefing as the basis for my selections.

Consistent with the criteria set forth in the solicitation, including the respective weight accorded to each of the evaluation factors and areas of focus, my source selection determination is based upon an assessment of each offeror's proposal and the totality of its accompanying evaluation results. Below are my analyses for each offeror and the basis for their selection to receive a contract award.

### Blue Origin

A summary of the SEP's evaluation for Blue Origin is as follows:

Blue Origin	Technical Rating	Management Rating
	Acceptable	Very Good

Below is a discussion of the findings from the SEP Briefing that I find to be particularly notable in making my selection decision. This selection statement does not identify or describe other SEP findings for Blue Origin with which I concur but that did not represent significant considerations in my analysis.

#### *Notable Technical Findings*

Within Technical Area of Focus 1, Technical Design Concept, the SEP evaluated Blue Origin's proposal as having two strengths that I find to be particularly notable. First, Blue Origin proposed a highly effective, human-centric approach for its rendezvous, proximity operations, docking and undocking system. Blue origin's unique design of this system will reduce crew workload during these critical operations and improve safety by allowing the crew to monitor overall vehicle performance. Second, the HLS design proposed by Blue Origin meets or exceeds all of the solicitation's threshold values provided for the 2024 initial performance requirements, and for each 2024 requirement that contains a goal value, Blue Origin's design meets the goal in all cases. Specifically, Blue Origin's HLS exceeds NASA's threshold requirements in the areas of initial habitation capability and landing accuracy, and meets NASA's goal requirements in the key areas of mass delivery from lunar orbit, extravehicular activity (EVA) excursions per sortie, scientific payload return to lunar orbit, and automated rendezvous, proximity operations, docking and undocking. These expanded capabilities offer benefits to NASA both for the initial 2024 mission and for the missions that follow, and further, they do so in a manner that is feasible and does not compromise other elements of Blue Origin's technical approach.

Within Technical Area of Focus 2, Development, Schedule, and Risk, the SEP evaluated Blue Origin's proposal as having one significant strength regarding Blue Origin's teaming arrangement that I find to be particularly notable. Specifically, Blue Origin has proposed two primary partners (Lockheed Martin and Northrop Grumman) that have extensive, demonstrated experience in spaceflight system design, development, and test and operations, and that will each be responsible, along with Blue Origin, for the parallel development of an element in the proposed Integrated Lander Vehicle. In addition, Blue Origin proposes to have Draper Laboratory provide crosscutting support in guidance, navigation, and control (GN&C). This teaming approach, which strategically draws upon the unique capabilities of each team member, as well as relies upon heritage hardware and systems, provides confidence that the team can complete the design, development, test, and evaluation of an HLS that meets NASA's requirements for the 2024 demonstration mission.

However, within Technical Area of Focus 2, the SEP also evaluated Blue Origin's proposal as having one significant weakness that I find to be noteworthy; specifically, Blue Origin's power and propulsion system has numerous attributes that introduce appreciable risk into its proposal. This system is comprised of multiple relatively low technology readiness level (TRL) systems that will be challenging to manufacture, integrate, and test. This proposed propulsion and power system architecture introduces significant risk to the program. Technically, the design appears to be sound, but this design can only come to fruition as a result of a very significant amount of development work that must proceed precisely according to Blue Origin's plan, including occurring on what appears to be an aggressive timeline. Blue Origin's Descent Element (DE) propulsion system includes novel approaches for achieving overall performance gains, but this comes at the expense of higher complexity with minimal historical experience and no flight history. The low TRL and complexity of its power system components and subsystems also decreases the potential for successful contract execution. Yet, while I agree with the SEP's evaluation on this aspect of Blue Origin's proposal, including the fact that it introduces significant risk, I note that Blue Origin overall has proposed a well thought-out design for its propulsion system. They have also conducted significant system modeling that increases the credibility of this approach. Thus, while this is overall a significant weakness of Blue Origin's proposal, Blue Origin's proposal in this area contains mitigating aspects, and this significant weakness otherwise does not outweigh the many notable positive technical attributes within Blue Origin's proposal.

Within Technical Area of Focus 5, Launch and Mission Operations, the SEP evaluated Blue Origin's proposal as having one significant strength regarding Blue Origin's approach to the training and certification of launch and mission operations personnel that I find to be particularly notable. Specifically, Blue Origin proposed a comprehensive, detailed plan for training and certification of launch and mission operations personnel that significantly exceeds NASA's requirements. Blue Origin's proposed approach of evolving from the use of low, to medium, and then high-fidelity simulators should provide a highly effective approach to training ground and flight crews for the first mission. Additionally, Blue Origin's exceptionally thorough Operations Integration Plan contains numerous instances of early collaborative and integrated full-team training that will provide highly effective paths to certification of critical personnel. Overall, this thoughtful and extensive proposed approach to its HLS training program will appreciably decrease mission risk.

Within Technical Area of Focus 7, Approach to Early System Demonstration, the SEP evaluated Blue Origin's proposal as having one significant strength, an early flight demonstration of its DE in 2023, that I find to be particularly notable. Blue Origin proposes this early flight demonstration at the same landing site selected for the 2024 crewed demonstration mission, and will test critical technologies and systems such as propulsion; entry descent and landing sensors, algorithms, and concept-of-operations; advanced avionics and automation; passive and active thermal control; and mission operations processes and procedures. By demonstrating these and other key attributes of its DE prior to the crewed demonstration, this testing strategy will significantly reduce schedule and technical risk.

#### *Price Assessment*

Using the methodology provided within the solicitation and the techniques specified at FAR 15.404-1(b)(2)(i), 15.404-1(b)(2)(v), and 15.404-1(b)(2)(iii), the SEP calculated a Total Evaluated Price for Blue Origin and evaluated that it is reasonable and balanced. I concur with these conclusions. In addition, I find it notable that through price negotiations, and in accordance with NASA's stated negotiation position, Blue Origin's final proposal contained a price reduction in excess of \$300M for the base period of performance without any corresponding change to its technical or management approach.

#### *Notable Management Findings*

Within the Management factor, the SEP evaluated two significant strengths within Blue Origin's proposal that I find to be noteworthy. First, the SEP evaluated a significant strength that I find to be notable within the Management Area of Focus 4, Commercial Approach. Here, Blue Origin proposes a strong commercial approach that "aims to use HLS capabilities and technologies to accelerate the development of a cislunar economy by making cargo and crew missions more affordable, available, and efficient." Blue Origin's target eventual customer base includes U.S. Government customers, collaborating international space agencies, and industrial customers from around the world. Blue Origin has also already started engaging with lunar cargo customers, and the integrated lander team partners propose to leverage their respective HLS investments to offer a variety of other services to the commercial marketplace. This aspect of Blue Origin's proposal thoroughly describes how Blue Origin will leverage its HLS efforts to enable future commercial uses of HLS capabilities and technologies while maintaining compatibility with NASA's objectives and facilitating sustainable and cost-effective recurring lunar transportation services for NASA and other stakeholders.

Second, the SEP evaluated a significant strength within the Management Area of Focus 5, Past Performance, that I find to be meaningful. Specifically, the SEP assessed that Blue Origin's proposal reflects a team with a successful record of relevant past performance across numerous efforts that have direct implications for their performance of this effort, and greatly increases NASA's confidence in their ability to successfully conduct the HLS demonstration mission. These team members are leveraging the successful development of previous spaceflight systems in developing the HLS systems. This relevant, positive past performance across numerous efforts greatly enhances Blue Origin's potential for successful contract performance.



### *Evaluation Summary*

Based on the totality of Blue Origin's evaluation results, particularly the foregoing notable findings, its Acceptable Technical rating, its Very Good Management rating, and its reasonable and balanced Total Evaluated Price, I find that Blue Origin has submitted a meritorious HLS proposal that warrants serious consideration for the award of an HLS contract.

### *Dynetics*

A summary of the SEP's evaluation for Dynetics is as follows:

Dynetics	Technical Rating	Management Rating
	Very Good	Very Good

Below is a discussion of the findings from the SEP Briefing that I find to be particularly notable in making my selection decision. This selection statement does not identify or describe other SEP findings for Dynetics with which I concur but that did not represent significant considerations in my analysis.

### *Notable Technical Findings*

Within Technical Area of Focus 1, Technical Design Concept, the SEP evaluated Dynetics' proposal as having two significant strengths and one related strength that I find to be particularly notable. First, Dynetics' proposal earned a significant strength because, in response to the solicitation's initial functional and performance requirements, Dynetics meets or exceeds all of NASA's threshold values, and for each 2024 requirement that contains a goal value (six in total), Dynetics proposed to meet or exceed that goal. Specifically, Dynetics meets the goal values for three of the requirements (scientific payload return to lunar orbit, HLS automated RPODU—Initial, and Landing Site Vertical Orientation), and exceeds the goal values for delivered payload mass, NRHO quiescent operations duration, and the number of EVAs supported. As a result of these features, Dynetics' proposed HLS system demonstrates sophisticated exploration capabilities, increases mission return, provides additional mission flexibility, and increases mission effectiveness.

Dynetics' second notable finding within the first Technical Area of Focus is a significant strength for its low-slung Crew Module architecture, and its related strength for an overall crew-centric design. Here, Dynetics designed its Crew Module in a way that greatly facilitates ease of access for crew to the lunar surface with a relatively small distance between the crew EVA hatch and the lunar surface. This design reduces the risk of crew injury due to falls, and simplifies the offloading and loading of equipment required for EVA missions. As a related strength that I find to be similarly noteworthy, Dynetics' HLS design overall is crew-centric, and likely to have a positive impact on successful contract performance as a result. For example, Dynetics has proposed optimal locations for its flight controls and windows to enable effective crew visibility during landing on the lunar surface and during proximity, docking and undocking operations. Other notable features include a predictable translation path and a dust barrier. By focusing on human systems integration, these design features will enable the crew to efficiently control safety hazards while operating the vehicle and gathering science from the lunar surface.

Within Technical Area of Focus 2, Development, Schedule, and Risk, the SEP evaluated Dynetics' proposal as having one strength regarding Dynetics' approach to its Descent/Ascent Element development. Here, Dynetics has proposed a highly innovative integrated horizontal drop tank Descent/Ascent Element architecture requiring only two primary development efforts: one for complex crewed spacecraft, and one for a moderately complex fuel element. By offering a unique alternative to the traditional three-element design for an HLS, Dynetics' two-element design minimizes mission risk and is directly responsive to the solicitation's call for "innovative solutions from the contractor(s)." This architecture reduces the number of highly complex element developments to one, and thus inherently minimizes the number of required interfaces and verification steps. Overall, this design choice by Dynetics will meaningfully reduce the amount of time needed for design, development, test, and evaluation of its HLS.

However, within Technical Area of Focus 2, the SEP also evaluated Dynetics' proposal as having one significant weakness that I find to be noteworthy, which is that Dynetics' power and propulsion system introduces appreciable risk of unsuccessful contract performance from both a technical and development schedule standpoint. This system is complex and relies upon technologies that are at relatively low maturity levels or that have yet to be developed for Dynetics' proposed application, but would need to be developed at an unprecedented pace. Many of its individual subsystems will have to be developed at a speed that does not align with historical experience for the development of analogous systems that perform similar functions. Yet, while I agree with the SEP's evaluation on this aspect of Dynetics' proposal, including the fact that it introduces significant risk, I note that the SEP also evaluated a related countervailing strength within Dynetics' proposal, which is that Dynetics' proposed propulsion system technical design concept thoroughly addresses NASA's stated requirements for propellant considerations, including storability, safety, maintainability, and future adaptation to an in-space refueling capability. This is a key capability required for its propulsion system. The proposed innovative propellant storage solution, if successfully developed and implemented, will result in a more mass-efficient system, which will in turn increase overall performance margin for Dynetics' HLS capability. Thus, while I agree that Dynetics' power and propulsion system overall presents substantial technical and schedule risk, it is also the case that its approach is exactly the kind of innovative solution that NASA sought through the HLS solicitation, and thus presents a measure of counterbalance against the risks inherent to Dynetics' propulsion system overall.

Within Technical Area of Focus 4, Insight, I find the SEP's evaluated strength for Dynetics' proposed approach to insight to be noteworthy. Dynetics proposed a robust, comprehensive plan for NASA insight that emphasizes transparency into all aspects of their development effort throughout the lifecycle of the HLS program. This approach exceeds the solicitation's requirements by enabling NASA participation at every step and level of the overall effort. For example, Dynetics proposes to allow NASA to have full access to its SharePoint systems, and will invite NASA to participate in all integrated product teams, Technical Interchange Meetings, and bi-monthly Program Management Reviews. These measures will facilitate open communication of status updates and will enable early identification of problems as they arise. Thus, Dynetics' approach to facilitating NASA insight will be advantageous to NASA during contract performance.

Within Technical Area of Focus 6, Sustainability, the SEP evaluated a significant strength that I find to be notable. Here, Dynetics has taken a "design for long term sustainability" approach to their HLS concept that will contribute significantly to long-term affordability. Sustainable capabilities are maximized in

Dynetics' baseline system, which will significantly ease the transition from initial phase operations to sustainable phase operations; the minimal redesign, requalification, and testing inherent to this approach will enable a faster and less expensive evolution to sustainability. This system design meets or drastically exceeds all the sustainable requirements of the HLS Program as established in the solicitation. For example, reusability and expanded propellant capacity are enabled by relatively inexpensive components with little or no design modifications. As another example, Dynetics has designed a flexible landing platform that is easily adapted into a large cargo delivery system, which presents a means to deliver both crew and cargo without having to procure a second cargo-specific landing system. These and other thoughtful sustainable design features offer excellent value to NASA for missions beyond 2024 while simultaneously meeting the solicitation's condition of not adding additional risk or other detriments to the 2024 mission.

#### *Price Assessment*

Using the methodology provided within the solicitation and the techniques specified at FAR 15.404-1(b)(2)(i), 15.404-1(b)(2)(v), and 15.404-1(b)(2)(iii), the SEP calculated a Total Evaluated Price for Dynetics and evaluated that it is reasonable and balanced. I concur with these conclusions.

#### *Notable Management Findings*

Within the Management adjectival factor, the SEP evaluated two significant strengths and one strength within Dynetics' proposal that I find to be noteworthy. First, within the Management Area of Focus 4, Commercial Approach, the SEP evaluated a strength within Dynetics' proposal as a result of its commercial approach that includes substantial engagement with potential international and commercial partners. Dynetics has begun discussions regarding its ability to transport payloads to the lunar surface utilizing the capabilities of its HLS system, including discussions with international partners. Overall, payload transportation is a particularly thoughtful aspect of Dynetics' proposal, in that Dynetics has teamed with two NASA Commercial Launch Payload Services contractors, in part, to ensure that the small commercial payload market is not adversely affected through HLS and similar efforts that present large payload capacities. Dynetics' proposal recognizes that an overall strategy involving a full spectrum of payload delivery options and markets will help ensure "sustainable and cost-effective recurring lunar transportation services." Dynetics' proposal also discusses how its plan for increased lunar access enables development of techniques for propellant utilization from the lunar surface, which will in turn lead to substantially reduced transportation costs, enabling a more robust set of commercial activities around and on the Moon. Dynetics' approach in extending the capabilities of future missions and in commercializing capabilities and technologies developed under this effort will be advantageous for NASA both during and after contract performance.

Second, the SEP evaluated a significant strength within Management Area of Focus 6, Small Business Subcontracting Plan, that I find to be notable. Dynetics' approach to utilizing small businesses, as documented in their Small Business Subcontracting Plan, appreciably exceeds the solicitation requirements in a way that will be advantageous to the Government during contract performance and beyond. Dynetics' proposed subcontracting percentages exceed the solicitation's stated goals in all but one category (HBCU/MSI), for which Dynetics nonetheless proposes to meet the stated goal. In addition, Dynetics proposes a time-phased approach for meeting goals over the life of the contract, ensuring



utilization of small business concerns throughout all phases of performance. In support of these proposal attributes, Dynetics provides strong and logical rationale substantiating their proposed goals and time-phased approach. The proposal thus clearly describes a very strong managerial commitment to utilizing small businesses, and most notably, in high technology areas. This commitment to using small business concerns will meaningfully contribute to the continued development of the small business technology base, and has the potential to reduce risk due to increased access to diverse technical solutions and capabilities within the small business community. Dynetics' successful implementation and adherence to its small business subcontracting plan will be advantageous to NASA during contract performance and thereafter.

Finally, the SEP evaluated a second significant strength within the Management factor that I find to be of note; specifically, within the Management Area of Focus 7, Data Rights, Dynetics' proposal demonstrates a comprehensive approach to data rights that in many cases, exceeds the Government's requirements in a way that will be advantageous to NASA on this contract and other human exploration programs in the future. As an initial observation, Dynetics' Assertion Notice is notably thorough. They have provided dozens of detailed assertions made at the lowest practicable and segregable level as required by the solicitation. This clarity allows both parties to understand their respective intellectual property rights at time of contract award, preventing time-consuming and often costly intellectual property negotiations and disputes that often occur during contract performance. In addition, Dynetics has worked with twelve of its major subcontractors and teammates to ascertain their proposed rights in data for their contributions to the HLS effort. As was true of the thoughtfulness of the prime contractor's assertions, this level of coordination and detail pre-award will enable the parties to have fewer data rights issues post-award. In addition to being exceptionally thorough and otherwise fully compliant with the solicitation's Assertion Notice requirements, Dynetics' approach to data rights is exceptional in that it proposes to provide a Government Purpose Rights (GPR) license for data and software that is critical to NASA in a manner that exceeds the license rights required by the solicitation. Obtaining a GPR license in data that could be leveraged in future human exploration-related NASA procurements is of particular importance to NASA for this procurement, and Dynetics' has proposed to develop much of this data at private expense but nonetheless deliver it to NASA with a GPR license. This data includes GN&C algorithms and software; lunar lander simulation and simulation framework data; and navigation sensor models. Dynetics' data rights proposal thus appreciably exceeds specified requirements in a way that will be advantageous to NASA during contract performance and thereafter.

#### *Evaluation Summary*

Based on the totality of Dynetics' evaluation results, particularly the foregoing notable findings, its Very Good Technical rating, its Very Good Management rating, and its reasonable and balanced Total Evaluated Price, I find that Dynetics has submitted a meritorious HLS proposal that warrants serious consideration for the award of an HLS contract.

## SpaceX

A summary of the SEP's evaluation for SpaceX is as follows:

SpaceX	Technical Rating	Management Rating
	Acceptable	Acceptable

Below is a discussion of the findings from the SEP Briefing that I find to be particularly notable in making my selection decision. This selection statement does not identify or describe other SEP findings for SpaceX with which I concur but that did not represent significant considerations in my analysis.

### *Notable Technical Findings*

Within Technical Area of Focus 1, Technical Design Concept, the SEP evaluated SpaceX's proposal as having one significant strength and one strength that I find to be particularly notable. First, SpaceX's proposal earned a significant strength because, in response to the solicitation's initial functional and performance requirements, SpaceX meets or exceeds all of NASA's threshold values, and for each 2024 requirement that contains a goal value (six in total), their proposal meets or exceeds that goal. Specifically, SpaceX's proposal meets the 2024 demonstration mission goal values for HLS automated rendezvous, proximity operations, docking and undocking, and landing site vertical orientation. Further, SpaceX exceeds the 2024 demonstration mission goal values for mass delivery from lunar orbit, quiescent lunar orbit operations, EVA excursions per sortie, and scientific payload return to lunar orbit. These expanded capabilities provide additional mission flexibility and increased mission effectiveness, which offer benefits to NASA both for the initial 2024 mission and for the missions that follow. In addition, SpaceX proposed implementing these expanded capabilities in a manner that is feasible and does not compromise other elements of SpaceX's technical approach. Second, SpaceX's proposed design thoroughly addresses the solicitation's requirements for the vehicle to support EVA operations, as well as for an effective dust mitigation strategy for the habitable volume. More specifically, SpaceX's Starship capability provides two fully redundant airlocks separated from the crew's living quarters by a common anteroom, each being capable of permitting two crewmembers to simultaneously don and doff EVA suits, with the ability to support four suited crewmembers if needed. I find these advantageous design attributes will facilitate and reduce the risk of EVA operations.

Within Technical Area of Focus 2, Development, Schedule, and Risk, the SEP evaluated SpaceX's proposal as having a strength that I find particularly notable. Specifically, SpaceX proposed an effective HLS design maturation methodology, which leverages development from its extensive heritage hardware and software systems used on existing flight programs, including its Cargo and Crew Dragon, as well as Falcon 9. This methodology reduces technical, schedule, and safety risk, as well as bolsters SpaceX's credibility for meeting the solicitation's primary objective of rapid HLS development to support a 2024 demonstration mission.

However, within Technical Area of Focus 2 the SEP also evaluated SpaceX's proposal as having two significant weaknesses that I find to be noteworthy. First, SpaceX's proposed propulsion system is notably complex and comprised of likewise complex individual subsystems that have yet to be developed, tested, and certified with very little schedule margin to accommodate delays. One notable example of this issue

concerns SpaceX's proposed reaction control system (RCS), which is very complex when compared to flight-proven systems and will require considerable development time. Additionally, there is significant risk associated with successful development of the integrated propulsion system given the proposed approach for integrating and testing the individual elements of the system. While I note that SpaceX has proposed a robust and aggressive plan for early systems demonstrations, which lends credibility to its proposed execution, this plan does not adequately address the risk of potential delay in development, as well as concomitant delay to SpaceX's demonstration mission. Second, SpaceX was evaluated by the SEP as having a significant weakness for its proposed overall architecture and concept of operations. Similar to the risks presented by SpaceX's propulsion system, this aspect of SpaceX's proposal presents other development schedule challenges (principally, those associated with its Starship variants and Super Heavy Booster), and requires numerous, highly complex launch, rendezvous, and fueling operations which all must succeed in quick succession in order to successfully execute on its approach. These development and operational risks, in the aggregate, threaten the schedule viability of a successful 2024 demonstration mission.

Within Technical Area of Focus 6, Sustainability, the SEP evaluated SpaceX's proposal as having one significant strength regarding SpaceX's design for a sustainable capability with augmented attributes that I find to be particularly notable. Particularly, this proposed design to be immediately developed in support of its first demonstration mission meets or exceeds all of NASA's requirements for sustainability with reusable elements and robust capabilities that will help realize the Agency's long-term goals for a sustainable and cost-effective lunar surface transportation system. These capabilities include numerous, extended duration EVAs, increase cargo capacity, the leveraging of refueling, and a design that supports any solar angle or thermal environment encountered on the lunar surface. By immediately incorporating these capabilities into its proposed design, SpaceX's proposal provides substantial mission design flexibility and dramatically reduces the time and cost associated with transitioning into sustainable phase mission operations. These and other thoughtful sustainable design features offer excellent value to NASA for missions beyond 2024 while simultaneously meeting the solicitation's condition of not adding additional risk or other detriments to the 2024 mission.

Within Technical Area of Focus 7, Approach to Early Systems Demonstration, the SEP evaluated SpaceX's proposal as having one significant strength for its robust and aggressive early systems demonstration plan that I find to be particularly notable. SpaceX's approach to rapid HLS development heavily prioritizes early and numerous ground and flight system demonstrations to reduce schedule and technical risk. Because the base Starship design serves both HLS and SpaceX's commercial launch purposes, SpaceX asserts that many of its HLS systems will be demonstrated many times on operational missions prior to the 2024 HLS mission. Examples of such demonstration activities include a low-Earth orbital flight of Starship with a demonstration of SpaceX's Super Heavy launch vehicle, a re-flight of the Starship, a long-duration orbital flight, a beyond-LEO flight, and a lunar landing demonstration mission scheduled for 2022. This comprehensive demonstration plan will meaningfully facilitate the maturation of critical technologies and demonstrably reduces schedule and technical risk, thereby greatly enhancing the potential for successful contract performance.

#### *Price Assessment*

Using the methodology provided within the solicitation and the techniques specified at FAR 15.404-1(b)(2)(i), 15.404-1(b)(2)(v), and 15.404-1(b)(2)(iii), the SEP calculated a Total Evaluated Price for SpaceX and evaluated that it is reasonable and balanced. I concur with these conclusions.

#### *Notable Management Findings*

Under the Management factor, within Management Area of Focus 4, Commercial Approach, the SEP evaluated SpaceX's proposal as having a significant strength for its approach to commercialization that I find to be notable. In particular, SpaceX's proposed commercialization efforts, including its substantial corporate contribution to fund significant aspects of this development effort, will contribute to fostering a cislunar economy and result in more cost-effective, recurring lunar transportation services for NASA and other customers. SpaceX plans to provide cargo and crewed mission services for a broad spectrum of commercial customers, enabling routine access to numerous locations beyond low-Earth orbit. Finally, SpaceX's proposed future ability to deliver large payloads to the lunar surface will be a key contributor to realizing NASA's goal of a sustained human presence on the lunar surface. This aspect of SpaceX's proposal thoroughly describes how SpaceX will leverage its HLS efforts to enable future commercial uses of HLS capabilities and technologies while maintaining compatibility with NASA's objectives and facilitating sustainable and cost-effective recurring lunar transportation services for NASA and other stakeholders.

Within Management Area of Focus 5, Past Performance, the SEP evaluated SpaceX's proposal as having a strength that I find particularly notable. Specifically, SpaceX's past performance on its Commercial Resupply Service contracts evidence a positive performance trend with demonstrated successful experience in the areas of rendezvous and proximity operations, fault management, berthing, and mission operations. This relevant past performance is likely to have a positive impact on SpaceX's successful performance of the HLS effort.

However, notwithstanding SpaceX's record of successful past performance and valuable relevant experience concerning the development of complex spaceflight hardware, the SEP also evaluated SpaceX's proposal as having a significant weakness in the area of Past Performance that I find notable. Specifically, SpaceX's record of performance on two relevant contracts—its Commercial Crew contract for the development of its human-rated Crew Dragon vehicle and its Air Force Orbital/Sub-Orbital Program 3 (OSP-3) contract for the development of the Falcon Heavy launch vehicle—both exhibited considerable schedule delays. These delays decreased the SEP's confidence in SpaceX's ability to successfully execute on its proposed HLS development schedule. While I concur with the SEP's conclusions with respect to this issue, I find that SpaceX's extensive relevant experience, combined with the lessons learned from these efforts, somewhat mitigate the risk associated with the potential for schedule delays.

#### *Evaluation Summary*

Based on the totality of SpaceX's evaluation results, particularly the foregoing notable findings, its Acceptable Technical rating, its Acceptable Management rating, and its reasonable and balanced Total Evaluated Price, I find that SpaceX has submitted a meritorious HLS proposal that warrants serious consideration for the award of an HLS contract.

## Selection Determination

Blue Origin, Dynetics, and SpaceX have each submitted HLS proposals that are uniquely meritorious and worthy of serious consideration for award of an HLS contract. I do not undertake a direct comparative analysis of or tradeoff amongst these proposals. However, these proposals, evaluated relatively similarly, allow me to consider programmatic relevance, balance, and the availability of funds in making my award decisions. Programmatic relevance encompasses a proposal's potential contribution to the Agency's scientific, technical, and human exploration programmatic objectives. I may therefore assess these attributes within each proposal in relation to the Agency's available funds; in other words, my analysis and selection may reflect the value each proposal presents to the Agency.

On this issue, it is my assessment that each of the three proposals respectively presents an excellent value to the Agency. As described above, each proposal presents unique and significant potential contributions to the Agency's scientific, technical, and human exploration programmatic objectives, including but not limited to those of the HLS Program. Each offeror has proposed an HLS design and approach that, in addition to presenting achievable strategies for conducting 2024 crewed lunar demonstration missions, will also undoubtedly result in a multitude of scientific, technical, and exploration advancements, including significant advancements that are as-yet unforeseen. NASA, its international partners, and the commercial spaceflight industry stand to realize considerable benefits if these three offerors are awarded HLS contracts.

In addition, in considering each proposal's value in relation to the Agency's available funds, I note that the Agency has a sufficient budget to fund base period awards for all three offerors. Blue Origin has the highest Total Evaluated Price among the three offerors, at approximately the 35th percentile in comparison to the Independent Government Cost Estimate. Dynetics' and SpaceX's prices each respectively fall beneath the 10th percentile. These are meaningful price differences. However, my selection must take into account NASA's acquisition strategy of making a sufficient number of HLS base period contract awards such that the Agency is able to realize the benefits of competition when making down-selections for the award of future contract options, including preserving competition when selecting the offeror(s) that will perform 2024 demonstration missions. It is my assessment that award to all three offerors is the most effective means of achieving this acquisition strategy.

In summary, all three offerors proposed audacious and innovative HLS designs and capabilities, each with unique technical merit. Many of the technologies upon which these capabilities rely have yet to be developed, tested, or demonstrated; the challenge that lies ahead is formidable. Yet while I acknowledge the risk that necessarily accompanies such intrepidity, it is undeniable that these three proposals present tremendous value and potential for NASA and other public and private stakeholders, both in respect to achieving a sustained human presence on the lunar surface and also in dramatically reducing future costs, risks, and timelines of deep space exploration missions and commercial activities. Therefore, I am awarding base period HLS contracts to Blue Origin, Dynetics, and SpaceX. Through these three awards, NASA will realize the benefits of competition when making down-selections for the award of HLS contract options. Maintaining this competitive environment through the 2024 demonstrations and beyond will create performance and pricing incentives for the HLS contractors that will maximize the probability of

NASA achieving its primary HLS objective—landing the first woman, and next man, on the lunar surface by 2024.

These HLS contract awards to Blue Origin, Dynetics, and SpaceX are a critical step in our return to the Moon. The Moon is uniquely suited to prepare us, and propel us, to Mars and beyond. The next chapter in human spaceflight exploration is upon us. With these awards, we go to the Moon, and we go to stay.

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Stephen Jurczyk  
Human Landing System SSA