

**Selection Statement for  
Collaborations for Commercial Space Capabilities  
(Announcement Number NASA-CCSC-01)**

**I. CCSC Background and Evaluation Process**

In July 2013, NASA issued a pre-solicitation synopsis soliciting expressions of interest from U.S. private sector enterprises that wish to enter into Space Act Agreements (SAA) for Collaborations for Commercial Space Capabilities (CCSC). The purpose of these agreements, as set out in the synopsis, is to advance commercial space-related efforts by facilitating access to NASA's vast spaceflight resources including technical expertise, assessments, lessons learned, and data. The synopsis indicated that NASA intends the CCSC activity to focus on facilitating the development of integrated space capabilities, not individual technologies. Based on the expressions of interest, NASA issued an Announcement for Proposals on March 31, 2014 for CCSC.

The Announcement for Proposals stated that the objective of the CCSC Agreements is to advance private sector development of integrated space capabilities so that the emerging products or services are commercially available to government and non-government customers within approximately the next five years. The Announcement clearly stated that NASA is using its other transactions authority within the National Aeronautics and Space Act, 51 U.S.C. § 20113(e), to enter into one or more SAAs where each party bears the cost of its participation, and there is no exchange of funds between the parties. These SAAs will serve as an agency-level mechanism for NASA and its partners to agree to a series of mutually beneficial activities, which are expected to be consistent with NASA's 2014 Strategic Plan. Proposed Agreements must have specific, identifiable alignment with one or more elements of Strategic Goal 1, Objective 1.1 to expand human presence into the solar system and to the surface of Mars to advance exploration, science, innovation, benefits to humanity, and international collaboration. NASA's Voyages report articulates NASA's multi-destination human space exploration strategy and the core capabilities needed to conduct increasingly complex missions to a range of destinations over time, such as transportation capabilities, capabilities for mission operations, and habitation and destination capabilities.

The Announcement for Proposals requested Part 1 proposals consisting of an Executive Summary of up to two pages. Part I proposals were required to summarize:

- Capabilities planned by the company,
- Purpose of the proposed partnership,
- Relevance to NASA,
- Business and technical approach, including why NASA should have confidence in the company's ability to complete the proposed capabilities, and
- Government resources requested under the proposed partnership.

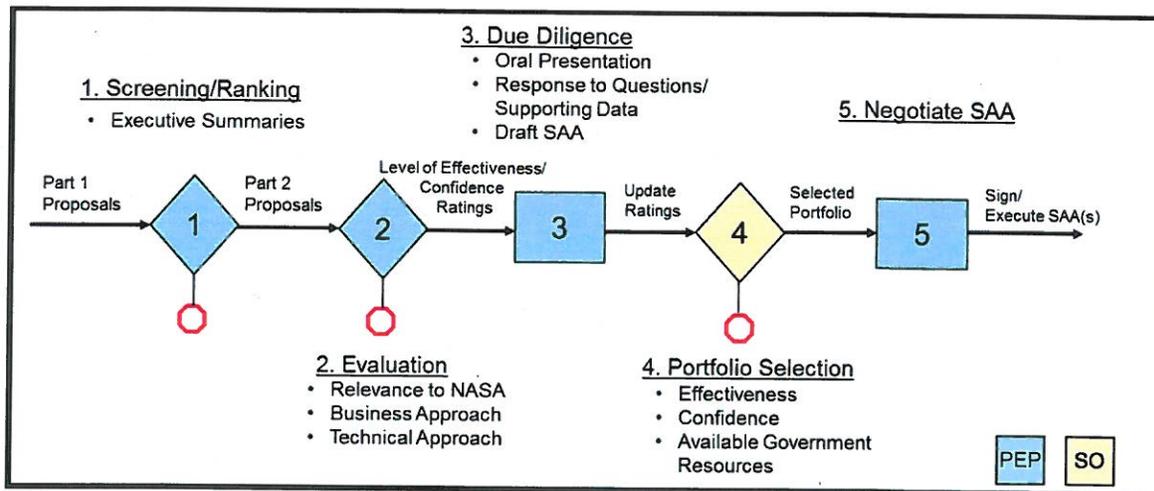
Part I proposals were due on April 21, 2014 and were received from the following participants:

Airbus Defense & Space	Skycorp (2 proposals)
Asteroid Initiatives (2 proposals)	Space Adventures, Ltd.
ATK	Spacedesign Corp (2 proposals)
Buzz Aldrin Innovation Institute	SpaceTek Incorporated
Deep Space Industries	SpaceX
Final Frontier Design	Swiss Space Systems
Liftport Inc. (5 proposals)	ULA
Moon Express	Zip Rocket
New Space Flight Training Association	
Rocketplane Global	

The evaluation team membership structure consisted of a Participant Evaluation Panel (PEP) and a team of evaluators. The PEP Chairperson was responsible for the overall management and execution of the evaluation team. The PEP was composed of four voting members: the Chairperson, Business Lead, Technical Lead, and Relevance Lead/Chief Safety and Mission Assurance Officer. Evaluators were comprised of non-voting members from various disciplines.

Upon receipt, the Agreements Officer conducted an acceptance screening to confirm that each proposal complied with the proposal instructions and met the intent of the requirements and goals of the Announcement. All Part I proposals passed acceptance screening.

The evaluation and selection were conducted using a five-step process as depicted below.



Step 1 of the evaluation process was a ranking of Part 1 Proposals (Executive Summaries) based on the alignment and relevance of the proposed capability with NASA’s Strategic Plan Objective 1.1 and NASA’s Voyages report, the feasibility of the participant’s business and technical approach, and the feasibility of the requested NASA support. Highest priority was placed on the most relevant and feasible proposals which help advance NASA’s exploration goals in a complementary manner. Each PEP member and evaluator assigned a numeric rating (1-5, 5=highest) to relevance to NASA and three elements of feasibility: technical approach, business approach, and requested government resources. The PEP chair established a ranking by totaling the sum of the relevance rating and the average of the three feasibility ratings. The PEP selected 14 proposals with a total of 5.8 or higher based on a logical break in the point structure that was identified in the ranking.

The participants whose Executive Summaries were most favorably evaluated received an invitation to deliver a Part 2 Proposal (Full Proposal) for the second step. All others received notice that their proposals were not among those most favorably evaluated.

Full proposals were received from nine of the 14 proposals selected for Step 2. One company, Airbus Defense & Space submitted a proposal past the deadline which was not evaluated in accordance with section 3.1.8 of the Announcement. The deadline was clearly identified in the notification letters sent to each of the companies selected for due diligence. NASA also failed to receive two proposals from Skycorp (they requested an extension that was denied) and two proposals from Asteroid Initiatives.

Participants that were not selected to submit Part 2 Proposals were:

Buzz Aldrin Innovation Institute  
Liftport Inc. (4 proposals)  
New Space Flight Training Association  
Space Adventures, Ltd.  
Spacedesign Corp (2 proposals)  
SpaceTek Incorporated  
Zip Rocket

Participants invited to submit Part 2 Proposals were:

Airbus Defense & Space	Moon Express
Asteroid Initiatives (2 proposals)	Rocketplane
ATK	Skycorp (2 proposals)
Deep Space Industries	SpaceX
Final Frontier Design	Swiss Space Systems
Liftport Group	ULA

Part 2 Proposals were divided into four sections and three appendices:

Section I	Executive Summary
Section II	Relevance to NASA
Section III	Business Approach
Section IV	Technical Approach
Appendix 1	Proposed Milestones
Appendix 2	Requested Government Resources
Appendix 3	Supplemental Business Data

Nine Part 2 Proposals were due on May 29, 2014. Part 2 Proposals were received from the following participants:

ATK  
Deep Space Industries  
Final Frontier Design  
Liftport Group  
Moon Express  
Rocketplane Global  
SpaceX  
Swiss Space Systems  
ULA

As part of the evaluation of full proposals (steps 2 and 3), the PEP assigned color ratings as depicted below for Level of Effectiveness of the proposal's Relevance to NASA and for Levels of Confidence in the Business Approach and Technical Approach.

Color	Criteria
 Blue	<b>Very High Level of Effectiveness:</b> The proposal is aligned with all or nearly all of the criteria and objectives described in section 4.1.3 of the Announcement and there is a very high potential benefit to NASA.
 Green	<b>High Level of Effectiveness:</b> The proposal is aligned most of the criteria and objectives described in section 4.1.3 of the Announcement and there is a high potential benefit to NASA.
 White	<b>Moderate Level of Effectiveness:</b> The proposal is aligned with some of the criteria and objectives described in section 4.1.3 of the Announcement and there is a moderate potential benefit to NASA.
 Yellow	<b>Low Level of Effectiveness:</b> The proposal is aligned with few of the criteria and objectives described in section 4.1.3 of the Announcement or there is a low potential benefit to NASA.
 Red	<b>Very Low Level of Effectiveness:</b> The proposal is aligned with very few or none of the criteria and objectives described in section 4.1.3 of the Announcement or there is a very low potential benefit to NASA.

**Level of Effectiveness Color Ratings**

Color	Criteria
 Blue	<b>Very High Level of Confidence:</b> The proposal section was evaluated to have more strengths than weaknesses and there is a very high likelihood of successful execution.
 Green	<b>High Level of Confidence:</b> The proposal section was evaluated to have more strengths than weaknesses and there is a high likelihood of successful execution.
 White	<b>Moderate Level of Confidence:</b> The proposal section was evaluated to have either no strengths and weaknesses or offsetting strengths and weaknesses and there is a moderate likelihood of successful execution.
 Yellow	<b>Low Level of Confidence:</b> The proposal section was evaluated to have more weaknesses than strengths and there is a low likelihood of successful execution.
 Red	<b>Very Low Level of Confidence:</b> The proposal section was evaluated to have more weaknesses than strengths and there is a very low likelihood of successful execution.

**Level of Confidence Color Ratings**

Step 2 of the evaluation process consisted of an evaluation of proposals received from the participants who were invited to and submitted full Part 2 Proposals. Each proposal was evaluated for its Relevance to NASA, and Business and Technical Approaches on a stand-alone basis without comparison to other proposals.

**Relevance to NASA Assessment:** This assessment considered the degree to which NASA could potentially benefit from the proposed capability by reducing cost or improving the availability or performance of space capabilities relevant to NASA's human exploration strategy.

**Business Approach:** The purpose of the business evaluation was to identify the strengths and weaknesses of the proposal necessary to generate a level of confidence of performance to be expected for operating a sustained entity that will supply the proposed capability to the market. The considerations included in this assessment were: the Business Strategy/Overview, Development Plan, Compliance with the legal, regulatory, and policy requirements and goals identified in the Announcement, the Financial and Resource Acquisition Plan, and any Business Risks.

**Technical Approach:** The purpose of the technical evaluation was to understand the critical characteristics of the design concept and to identify the strengths and weaknesses of the proposal necessary to generate a level of confidence of performance to be expected. The considerations included in this assessment were: the Capability Concept, Development, Production, and Demonstration, Safety and Mission Assurance Approach, and any Technical Risks.

Initial Level of Effectiveness color ratings were assigned to each proposal's Relevance to NASA section and Level of Confidence ratings were assigned to each proposal's Business and Technical sections. After all proposals were evaluated, the evaluation panel performed a consistency check in order to ensure that all proposals had been evaluated consistently.

After all stand-alone evaluations were complete, the PEP determined the proposals most favorably evaluated as candidates for further due diligence. Five companies that received white or higher ratings were determined to be those most favorably evaluated in accordance with Section 5.6.3 of the Evaluation Plan. The four companies that received yellow or red ratings were determined not to be among those most favorably evaluated and were not selected for due diligence.

**The following four proposals were not selected for due diligence:**

- Swiss Space Systems
- Liftport Group
- Moon Express
- Rocketplane Global

**The following five proposals were selected for due diligence:**

- ATK
- Deep Space Industries
- Final Frontier Design
- SpaceX
- ULA

As Step 3 of the evaluation process, NASA then conducted face-to-face due diligence meetings with those participants whose proposals were most favorably evaluated during Step 2. NASA provided the participants with findings resulting from the initial evaluation and requested that they provide a draft of any changes they would seek to the NASA-provided draft SAA. During the diligence meetings, participants had the opportunity to present their overall proposal and respond to the findings submitted

by NASA. In addition, NASA worked with the participants to discuss any issues associated with the draft SAA. No identified issues were deemed significant in terms of NASA's ability to conclude an SAA with the 5 companies.

After completion of the due diligence meetings, the PEP reconvened to modify or amend the proposal evaluation summaries based on any new information obtained that may have impacted the initial evaluation results. The PEP also assigned final level of effectiveness/confidence color ratings based on the modified or amended evaluation summaries.

In Step 4, the PEP prepared and presented to me a summary of the proposal evaluations. This included the PEP's analysis and recommendation for selecting one or more of the proposals for award. The PEP's final evaluation results included all 5 companies in the competitive range.

## **II. CCSC Selection Official's Evaluation Process**

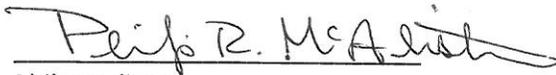
On August 18, 2014, the PEP presented their analysis and recommendation to the Selecting Official (SO), the Director of Commercial Spaceflight Development Division, Human Exploration and Operations Mission Directorate at NASA Headquarters. As the SO, I compared the proposals against one another and considered them in light of NASA's available resources, selecting a portfolio among the 5 companies recommended as competitive by the PEP.

My significant considerations for selection were:

- I accepted the findings of the PEP, including the findings and color ratings of the proposals.
- Given the requirements on NASA for all 5 proposals, I felt that the full duration of all 5 were not supportable within NASA's budget and available resources.
- However, I did not want to constrain the number of awards too much, as that would run counter to the objectives of the Announcement. NASA's Strategic Goal 1 and the extensive list of core capabilities identified in the Voyages document are very broad and it is in the Agency's interest to facilitate the development of as many integrated space capabilities as possible.
- In order to support a higher number of awards, I considered truncating the terms of the SAAs to approximately 30 months. This term provided a natural break point for company-proposed milestones, as presented by each of the Participants. At the 30-month timeframe, each company could achieve measurable progress toward the development of an integrated capability, thereby permitting the availability of the integrated capabilities with the 5-year (approximate) timeframe identified in the Announcement. In addition, this would allow NASA to reassess the Agency's capabilities requirements and budget availability, and to evaluate the progress of the awardees to determine if continuing the CCSC activity was still in alignment with the Agency's overall strategy.
- I confirmed that all 5 proposers could make measurable progress towards an integrated space capability within the 30-month timeframe. However, awards to all 5 companies, even with the shorter timeframe, would still stress the available NASA budget and resources. I concluded that a smaller portfolio would enable NASA to focus more resources on the remaining selected companies, thereby increasing the likelihood they will be successful.
- The proposals from ATK, ULA, and SpaceX were rated highly by the PEP. I believed these proposals were credible and that the companies had a high likelihood of achieving the goals of their respective activities. Therefore, my down select decision involved comparing the proposal from Final Frontier against the proposal from Deep Space Industries.

--A further consideration was to prioritize awards under the CCSC program for those commercial space-related integrated space capabilities that would not be accomplished under existing NASA program and activities. Final Frontier's proposal met this consideration. Deep Space Industries, on the other hand, proposed to develop capabilities that qualified for an award under NASA's Asteroid Redirect Mission (ARM). NASA issued a related broad agency announcement (BAA) in March, 2014 seeking studies on advanced technology development and potential partnerships in areas related to asteroid exploration. Deep Space Industries was awarded two BAA contracts to assess the feasibility of partnerships to support the ARM. The capabilities proposed by Deep Space Industries could be awarded through follow-on contracts or partnership agreements as soon as March 2015.

Based on all the considerations articulated above, and after consultation with my Ex-Officio Advisors, I decided to select 4 companies -- ATK, Final Frontier, SpaceX and ULA -- for negotiation of a SAA. Following selection, on September 2, 2014, negotiations began with selected participants of the draft Space Act Agreement. The final step of the competitive process is to complete negotiation of the SAAs and to sign those agreements with the selected participants.



12/18/2014

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