



PROCUREMENT OF CREW TRANSPORTATION AND RESCUE SERVICES FROM BOEING

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Synopsis:

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NASA/Lyndon B. Johnson Space Center, Houston, 77058-3696, Mail Code: BG

NASA is considering contracting with The Boeing Company (Boeing) for crew transportation services to and from the International Space Station (ISS) on the Russian Soyuz vehicle. This transportation would be for one crewmember in the Fall of 2017 and one crewmember in the Spring of 2018. NASA is considering purchasing these services from Boeing, without competition, because no other vehicles are currently capable of providing these services in Fall 2017 or Spring 2018. NASA has contracts with two U.S. commercial companies for crew transportation to the ISS. However, these vehicles are still in the developmental stage, and not expected to begin fully operational flights to the ISS until 2019. NASA also is considering an option to acquire crew transportation from Boeing for three crewmembers on the Soyuz in 2019, to ensure the availability of back-up transportation capability in the event the U.S. commercial contractor vehicles are delayed or to augment future ISS operations and research.

NASA is issuing this synopsis in order to provide notice of the Agency's requirements and to determine whether any other potential sources have the current capability to provide these crew transportation services in the needed timeframes. Interested organizations may submit their capabilities and qualifications to provide the crew transportation services described below. Such capabilities/qualifications will be evaluated solely for the purpose of determining whether or not to conduct this procurement on a competitive basis. The determination of whether or not to acquire these services without competition is solely within the discretion of the Government.

Submissions must be provided in writing to the identified point of contact not later than 4:30 p.m. local time on January 27, 2017. Oral communications are not acceptable in response to this notice. The Government intends to acquire the described services as a commercial item using FAR Part 12.

Description of Services to be Acquired

The services NASA is considering acquiring from Boeing are the launch, return, and rescue of U.S. or U.S. designated astronauts and associated services, which include the following:

- Launch and return of U.S. Operating Segment (USOS) Crew members to the ISS for planned six-month missions.
- On-orbit rescue services for the duration of six-month missions.
- Provision of Emergency Rescue services and medical support, post flight medical support.
- Search and Rescue services and recovery at landing site.
- Theoretical and practical training of Astronauts for nominal, off nominal and sea survival activities.
- Customized Astronaut launch, training and landing gear including: Seat liners, Sokol, Water Survival Cold Weather and Elemental Survival suits.
- Media personnel technical and logistical support to facilitate broadcasting of flight related activities, facilitating the communication of NASA and ISS success to the world.
- Ground support and transportation for up to 110 NASA personnel and delegates for launch, landing and associated events including visa support, housing, logistics, security and clearance for facility access.
- Limited cargo services for storage, delivery to, and return, from the ISS including disposal of trash from the ISS for cargo associated with crew delivery and return.
- Spacecraft telemetry and support services for all stages of flight.

Background

The purchase of these services in 2017 and 2018 will increase US crew size on the ISS from three to four crew members to maximize ISS science utilization. Maximizing science utilization of the ISS is a program priority as required by the NASA Authorization Act of 2010 and the Commercial Space Launch Competitiveness Act (CSLCA) of 2015. Given the statutory requirements contained in the 2010 Authorization Act and the 2015 CSLCA, NASA constantly seeks opportunities to maximize scientific utilization of the ISS to achieve the largest possible return on the investment made by the United States and its international partners in the development, assembly, and operations of this unique laboratory.

NASA also has a need for the option to procure crew transportation services in the spring of 2019 time frame to provide either a primary or a backup crew transportation capability. An option ordering period ending in the fall of 2017 will allow NASA to evaluate performance of U.S. crew transportation services providers currently on contract and determine if back up capability is needed or if more crew time may be necessary to maximize research onboard the ISS and the U.S. National Laboratory in 2019. Crew transportation services are currently provided via a contract with the Russian State Space Corporation "Roscosmos" through 2018. NASA has contracts with two U.S. commercial providers developing new crew transportation systems, which are anticipated to provide domestic crew rotation transportation service to and from the ISS beginning in 2019. In the event the U.S. commercial crew providers are delayed in demonstrating a fully operational capability to transport humans to space, the risk of de-crewing ISS greatly increases. The absence of US crew members at any point would diminish vehicle operations to an inoperable state. As a means to mitigate that risk and to ensure that proper launch cadence is maintained

for future launches to the ISS, NASA intends to include a contract option from Boeing for its Soyuz seats in CY 2019 that will provide NASA with a capability to ensure uninterrupted access to the ISS while U.S. commercial providers establish that their vehicles have full operational capability, or provide for more crew time to maximize research onboard the ISS and the U.S. National Laboratory in 2019.

The Russian Soyuz is currently the only vehicle with the operational capability to provide crew services to and from the ISS in 2017 and 2018. There are eight Soyuz launches planned between CYs 2017 and 2018 (four per year). The crew capacity of the Soyuz is limited to a maximum of three crew members per vehicle. Because of this limitation, the current launch cadence utilized by NASA to transport crew to the ISS and maintain the current crew complement employs Soyuz launches that alternate between two types of crew configurations. The first Soyuz configuration ("Line A") includes a single US crew member and two Russian crew members that are transported to the ISS. The second Soyuz configuration ("Line B"), usually timed to launch within a couple months of Line A, includes two US crew members and a single Russian crew member. This cadence maintains a typical crew complement of three US crew members aboard the ISS.

Russia recently announced its plans to decrement the Russian crew count onboard ISS from three to two, beginning in CY 2017. As a result of Russia reducing its crew count by one crewmember, there is now an available Soyuz seat in the 2017-2018 timeframe on each of the two planned spacecraft that would have otherwise had two Russian crew aboard. Of the 24 total Soyuz seats available in 2017-2018, the three seats resulting from the Russian crew decrement are the only available means of transporting additional US crewmembers to ISS during this period.

An agreement was recently reached between the Boeing Company and S.P. Korolev Rocket and Space Public Corporation, Energia ("RSC Energia"), who is the manufacturer of the Soyuz spacecraft and has the legal rights to sell the seats and associated services. As a part of this agreement, Energia agreed to provide to Boeing two specifically identified seats on the Soyuz spacecraft for long-duration travel to and from the ISS, one on a flight to occur in the Fall 2017 timeframe and another on a flight to occur in the Spring 2018 timeframe. Additionally, Energia provided Boeing three additional specifically identified seats in the Spring 2019 timeframe on two Soyuz spacecraft. Finally, Boeing and RSC Energia agreed that each of these five seats will include a launch of an individual to and from the ISS, including all services normally provided during launches to ISS. Boeing and RSC Energia have represented that Boeing has the full rights to these seats and can sell them to any third party.

Since both U.S. commercial contractors' vehicles are still in the developmental stage, and not expected to begin fully operational flights to the ISS until 2019, the Russian Soyuz is currently the only vehicle capable of meeting the Government's needs in the required timeframes. As stated above, Boeing has obtained the exclusive ownership rights to these particular Soyuz seats and ancillary services during the stated time periods. The option for these Soyuz services in the Spring of 2019 time frame may be utilized as a primary or backup transportation capability to ensure proper launch cadence with no gaps in crew rotation transportation, or to augment future ISS operations and research. However, after U.S. commercial entities are fully operational and able to fulfill crew transportation requirements, the U.S. commercial vehicles will be NASA's primary transportation source to ISS.

NASA Clause 1852.215-84, Ombudsman, is applicable. The Center Ombudsman for this acquisition can be found at http://prod.nais.nasa.gov/pub/pub_library/Omb.html.

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Opportunity History

- **Original Synopsis**

Jan 17, 2017

8:00 am