

SPACE ACT AGREEMENT AMENDMENT SIX
BETWEEN
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
AND
SPACE EXPLORATION TECHNOLOGIES CORP.
FOR
COMMERCIAL ORBITAL TRANSPORTATION SERVICES DEMONSTRATION (COTS)

PURPOSE AND AGENCY COMMITMENT

The purpose of this Amendment is to modify Space Act Agreement NNJ06TA26S to add Milestones that reduce risks associated with the remaining development and timely demonstration of cargo space transportation capabilities. The additional Milestones improve the chance of mission success by (1) augmenting ground and flight testing; (2) accelerating development of enhanced cargo capabilities; or (3) further developing the ground infrastructure needed for commercial for commercial cargo capabilities.

Appendix 2 is amended to add the following:

<p>Milestone 27: LIDAR Sensors 6 Degree of Freedom Testing Plan (closed loop)</p> <p>SpaceX shall submit a plan for a LIDAR 6 DOF test. The plan should describe fabrication of a flight-like Dragon LIDAR, installation in a simulated sensor bay with representative sensor field of view and description of the testing of the systems at a 6 Degree Of Freedom (DOF) test facility to characterize the systems performance over a wide range of angles of attack and lighting conditions in a closed loop control configuration. The Parties agree that the resulting test data/items furnished by SpaceX shall not be considered "Proprietary Data" as that term is defined in Article 12.</p> <p>Entrance Criteria:</p> <ul style="list-style-type: none">• Test Plan/ Procedure delivered and provided for NASA's concurrence• Acceptable ranges for key performance parameters defined• Data acquisition system defined to support test• Data and analysis to be provided to NASA defined and agreed to• Three additional LIDAR units acquired to support testing <p>Success Criteria:</p> <ul style="list-style-type: none">• Test Plan (6 DOF) delivered and concurred by NASA• Test Report (Thermal Imager) delivered and concurred by NASA• Long lead items on order	<p>Amount \$5,000,000 Date: March 2011</p>
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Milestone 28: Thermal Vacuum System Test Plan and Procurement

SpaceX shall implement infrastructure enhancements to enable testing of critical subsystems and a system level Dragon/Trunk in a Thermal Vacuum Chamber.

Entrance Criteria:

- Test plan developed for a Dragon/Trunk TVAC system level test and provided for NASA's review and concurrence
- Test plans for components and subsystems developed and provided for NASA's review
- Plan and schedule to acquire or lease TVAC facilities and infrastructure capable of component and Dragon system level testing developed
- Required licenses, permits, approvals and agreements identified and obtained
- Schedule of the activities developed and maintained

Success Criteria:

- Test plan for Dragon/Trunk delivered and concurred by NASA
- Test plans for components and subsystems delivered, reviewed by NASA and released
- Acquisition and installation plan delivered and concurred by NASA
- Long lead items on order
- Licenses, permits, approvals and agreements for Dragon/Trunk system level test facility provided and executed on schedule
- Implementation schedule provided

Amount \$5,000,000

Date: March 2011

Milestone 29: Overall Infrastructure Plan and Long Lead Procurement

SpaceX shall develop a plan to implement enhancements to the launch/recovery site, test site and production facility infrastructure to enhance the execution of the cargo demonstration and operational missions. Long lead procurements shall be initiated.

Entrance Criteria:

- List of planned enhancements to the launch/recovery site, production and test site facilities relevant to enhanced execution of cargo missions developed and provided for NASA's review and concurrence
- Design or acquisition of new facilities and infrastructure developed (construction plans, tooling concepts or designs and details of other enhancements)
- Required licenses, permits, approvals and agreements obtained
- Schedule of the activities developed and maintained

Success Criteria:

- Plans for infrastructure enhancements reviewed and agreed to by NASA
- Long lead items on order
- Construction or installation of selected early enhancements complete
- Licenses, permits, approvals and agreements executed on schedule

Amount \$10,000,000

Date: March 2011

ARTICLE 28. SIGNATURE BLOCK

The terms and conditions of SAA NNJ06TA26S, as modified by this Amendment, are hereby incorporated herein.

NATIONAL AERONAUTICS AND
SPACE ADMINISTRATION

SPACE EXPLORATION
TECHNOLOGIES CORP.

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Associate Administrator,
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BY: Elon Musk
Elon Musk
Chief Executive Officer

Date: 3/2/2011

Date: 2/23/11