SPACE ACT AGREEMENT – NNK11MS03S, AMENDMENT ONE (01)
BETWEEN
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
AND
THE BOEING COMPANY
FOR
COMMERCIAL CREW DEVELOPMENT ROUND 2 (CCDev 2)

PURPOSE AND AGENCY COMMITMENT

The purpose of this Amendment is to modify Space Act Agreement NNK11MS03S to update Appendix 2(a): Performance Milestones and Success Criteria with the addition of Performance Milestones listed as Optional Performance Milestones and Success Criteria in Appendix 2(b) of the initial Agreement. The addition of these milestones (Optional Milestones 14, 16, and 20) is to accelerate maturation of the CST-100 Spacecraft and retire significant risk by enabling performance of PDR for software of flight and ground software, hot fire testing of the Orbital Maneuvering and Abort Control (OMAC) engine and Service Module (SM) Propulsion Cold Flow tests.

Availability of Funds:

Funds are not presently available for milestones 13 and 14 of this Agreement. The Government's obligation under this Agreement is contingent upon the availability of appropriated funds from which payment for Agreement purposes can be made. No legal liability on the part of the Government for any payment may arise until funds are made available to the Agreement Officer for this Agreement and until the Partner receives notice of such availability, to be confirmed in writing by the Agreement Officer.

Appendix 2(a) is amended to add the following:

Milestone 12: Software PDR* *(Previously identified as Milestone #16 in Appendix 2(b))* **Description of Milestone:** Boeing shall perform a PDR of Flight and Ground Software. **Success Criteria:** Completion of PDR in accordance with Table G. Provide NASA a copy of review materials, final board presentation, closed RID summary, and open RIDs with preliminary closure plans for major issues.	Amount: $15.2M Date: June 2012

Milestone 13: OMAC Hot Fire Test Complete *(Previously identified as Milestone #20 in Appendix 2(b))* **Description of Milestone:** Boeing shall conduct hot fire testing of the Orbital Maneuvering and Abort Control (OMAC) engine to characterize performance per approved test plan. **Success Criteria:** Completion of OMAC engine hot fire tests in accordance with Table D. Provide NASA with a copy of the test project plan and a quick look summary test briefing to document results.	Amount: $4.2 million Date: July 2012
Milestone 14: SM Propulsion Cold Flow Tests Complete *(Previously identified as Milestone #14 in Appendix 2(b))* **Description of Milestone:** Boeing shall fabricate an SM propulsion test stand that simulates SM line runs and components to conduct dynamic flow testing to validate proper line size and routing of SM propulsion system. **Success Criteria:** Complete SM propulsion system cold flow tests in accordance with Table D. Provide NASA a copy of the Boeing approved test project plan and a quick look summary briefing of test results.	Amount: $1.2 million Date: July 2012

ARTICLE 28. SIGNATURE BLOCK

NATIONAL AERONAUTICS AND
SPACE ADMINISTRATION

BY: Philip R. McAlister
Philip McAlister
Special Assistant to the Associate Administrator
For Exploration Systems

DATE: 9/14/2011

THE BOEING COMPANY

BY: Leon Beard
Leon Beard
Contracts Manager

DATE: 8/12/2011