

SPACE ACT AGREEMENT
BETWEEN
THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
AND
BIGELOW AEROSPACE, LLC
FOR
BEYOND LOW EARTH ORBIT HUMAN SPACE EXPLORATION AND DEVELOPMENT

ARTICLE 1. AUTHORITY AND PARTIES

In accordance with the National Aeronautics and Space Act (51 U.S.C. § 20113), this Agreement is entered into by the National Aeronautics and Space Administration, located at 300 E Street SW, Washington, DC 20546 (hereinafter referred to as "NASA") and Bigelow Aerospace, LLC located at 4640 S. Eastern Ave., Las Vegas, NV 89119 (hereinafter referred to as "Bigelow" or "Partner"). NASA and Partner may be individually referred to as a "Party" and collectively referred to as the "Parties."

ARTICLE 2. PURPOSE

The purpose of this Agreement is to facilitate and explore, in a manner that meets both national and commercial goals and objectives, joint public/private arrangements that would continue to build the ability for humans to live and work in space through the expansion of exploration capabilities beyond low Earth orbit. By conducting this joint effort, the Parties build on their experience and their mutual recognition of the value of a human presence and exploration development in low Earth orbit, ranging outward from Bigelow Aerospace's existing contract with NASA to conduct a technology demonstration of expandable structures on the International Space Station ("ISS") to significant private sector involvement and operations in beyond low Earth orbit including cislunar space and beyond. The partnership continues to foster increased commercial use and research in low earth orbit on the ISS and with Bigelow Aerospace's private sector near term plans to design, develop, and operate in low earth orbit a commercial space station capability. In addition, it is coupled with private sector long-term plans of beyond low earth orbit operations including those of Bigelow Aerospace to place a lunar base on the surface of the Moon. The Parties hereby agree to embark on a series of phased activities to achieve the initial objective of assessing and defining potential options where public and private investments enable missions and broader objectives, including exploration capabilities beyond low earth orbit.

The Parties agree that, similar to the progress that has been made with low Earth orbit, there is potential for commercial involvement to provide economic expansion beyond government investment and potentially enable dramatically reduced costs in beyond low earth orbit activities. This joint involvement between human space exploration and commercial enabling/utilization can provide synergy and enable missions in concert with national capabilities and technology investments, such as the NASA's Orion and Space Launch System capabilities.

At the most fundamental level, the benefit that this partnership provides to NASA is captured in the Strategic Goals of the Agency:

- Strategic Goal 1: Extend and sustain human activities across the solar system
- Strategic Goal 3: Create innovative new space technologies for our exploration, science, and economic future
- Strategic Goal 6: Share NASA with the public, educators, and students to provide opportunities to participate in our Mission, foster innovation, and contribute to a strong national economy

Per Article 5(B)(1), NASA will engage in outward facing communications intended to highlight the importance of the work being conducted under this Agreement and to encourage broad participation. Due to Bigelow Aerospace's unique position in the commercial space industry and its ongoing outreach efforts, NASA chose to implement this Agreement without competition, and therefore this Agreement is entered into on a nonexclusive basis.

ARTICLE 3. BACKGROUND

NASA initially developed the concept of expandable space habitats for use during long in-space human transit and operational periods. It was further refined for use in the TransHab module project for the ISS and is currently under commercial development by Bigelow Aerospace. In addition to providing large amounts of usable volume, these habitat structures showed promise in reducing the effects of radiation, lowering launch mass requirements, and requiring smaller amounts of rocket fairing space than traditional metallic structures.

When NASA chose to no longer pursue the TransHab module for the ISS, the technology's appeal remained strong in the commercial sector, and in the spring of 1999, expandable habitats received a commercial beginning with the founding of Bigelow Aerospace. Bigelow Aerospace's President and Founder, Robert T. Bigelow, committed to funding a commercial development effort, and executed an exclusive licensing agreement with NASA for the Agency's TransHab patents.

NASA continued to support expandable habitat technology development and technology transition through a series of Space Act Agreements with Bigelow Aerospace: SAA-HA-02-25(4/2002–11/2004), SAA-HA-04-46(10/2004–5/2006), SAA-AT-06-017(6/2006 – 4/2009), and the current agreement SAA-EA-09-002(4/2009 – 3/2014).

During this time Bigelow Aerospace proceeded to conduct initial design and development work that led into the first flight program for expandable structures, the Genesis missions, under which expandable habitat prototypes would be constructed, launched, and demonstrated in an actual orbital environment. Bigelow Aerospace contracted with the joint Russia-Ukrainian launch company ISC Kosmotras to deploy its spacecraft via the Dnepr rocket. The launch of Genesis I took place on July 12, 2006. The launch, deployment, and operation of Genesis I exceeded Bigelow Aerospace's expectations and generated invaluable performance data. The success of Genesis I was a critical first step toward validating the promise of expandable habitats and dramatically raised the system's Technology Readiness Level. To gain further experience with

expandable habitats and go a step beyond Genesis I, a second similar sub-scale prototype, Genesis II, was launched on June 28, 2007. The Genesis II launch, deployment, and operation was also all very successful and Bigelow Aerospace yet again demonstrated expandable habitats and increased its engineering expertise in an actual orbital environment.

As NASA reached the completion of assembly of the ISS, NASA shifted to increase utilization of the ISS including use by non-NASA entities. NASA began operating a share of the U.S. accommodation on the ISS as a National Laboratory in accordance with the NASA Authorization Act of 2005, Section 507 (P.L. 109-155). Bigelow Aerospace proposed (BAA-NNH10CAO001K) a demonstration on the ISS to advance the technical development of expandable habitats and NASA selected and awarded a contract in December 2012 (NNH12390355R) to test the Bigelow Expandable Activity Module ("BEAM") to gather knowledge on the certification process for expandable habitats as part of an integrated human qualified system and to obtain critical performance data on radiation performance, thermal control, and overall on-orbit utilization.

On the commercial side, Bigelow Aerospace, recognizing that there was little more to be learned from additional Genesis missions, in the fall of 2007, shifted its focus to the creation of its full-scale system, the BA 330. As the name indicates, the BA 330 will provide roughly 330 cubic meters of internal volume and can support a crew of up to six. Developed exclusively via private funding and without receiving any financial support from the federal government, Bigelow Aerospace has continued to mature the BA 330 and is currently on schedule to finish construction of its first privately developed habitat in 2016 ready for flight.

With the Genesis missions complete, the BEAM demonstration project underway, and a path forward for privately funded low earth orbit expandable habitats, the Parties are positioned to continue forward toward fuller commercial utilization and research in low earth orbit and initiation of beyond low earth orbit cooperation. Specifically, the Parties will further determine how expandables and private sector investment can play a critical role in enabling NASA to implement a human space development and exploration strategy that enables bold national objectives and stimulates economic expansion in an affordable manner.

The Parties hereby agree to embark on a series of phased activities to achieve this objective. The phases will be linked by a series of "Gates" as described in ARTICLE 4 below. Passage through each Gate will occur upon the successful completion of a predetermined set of requirements and the development of required agreement documents, as agreed to by the Parties. Fulfillment of each Gate is a necessary and sufficient condition to proceed to the next phase.

ARTICLE 4. GATES

Two Gates are identified that constitute milestones in the determination of the benefit to the Parties in further direct cooperation. In the event that either Party does not meet any Gate, an assessment of the impact thereof to the Project will be carried out by the Parties to determine the best alternative course of action. Any follow-on agreements or modifications agreed to by the Parties in the course of implementing the Gates as described herein shall be fully incorporated in

this Agreement and shall constitute a modification of this Agreement in accordance with ARTICLE 23 Modifications.

Gate 1: Conduct a joint formulation of objectives for the commercial and government contributions and utilization for the development and exploration of space beyond low Earth orbit.

The intent of the Parties is to create a joint activity between the broader private sector industry and NASA to ensure that both the public and private sectors make a bold push for beyond low earth orbit exploration and utilization. The key to achieving such an objective is to demonstrate the value of low earth orbit for commercial research and utilization, enable broader national objectives throughout cislunar space, while dramatically reducing the cost to the public sector by ensuring private sector involvement in space exploration. The outcome of this gate is the release of common objectives by public and private involvement in space exploration. This will include private industry contributions to enable and utilize beyond low earth orbit exploration. Efforts under this gate in the Agreement are intended to serve as a beginning.

Gate 2: Assess the intersection of the capability to live and work in low Earth orbit with other commercial interests in low earth orbit and all of cislunar space, including specific commercial proposals and interests towards those ends.

To ensure the feasibility of potential contributions, Bigelow Aerospace will strive to seek inputs from the private sector on potential contributions and approaches to integration that enables a focus on more than just robust exploration beyond low Earth orbit. This will include the establishment of private sector goals and priorities. These private sector contributions and priorities will enable a joint assessment of possible integrated approaches between the public and private sectors.

ARTICLE 5. RESPONSIBILITIES

A. BIGELOW will use reasonable efforts to:

1. *Gate 1: Asset Identification*

Execute the work described in Gate 1 via a series of discussions and meetings with relevant members of industry, government, and NASA. Specifically, Bigelow Aerospace will leverage its existing relationships and expertise from the company's ongoing pursuit of commercial low earth orbit operations to formulate common objectives between NASA and commercial industry for beyond low earth orbit. This will demonstrate the value of new, emerging NASA and private sector supported capabilities building upon the low earth orbit model with expansion in beyond low earth orbit objectives. Bigelow Aerospace will identify which companies can make contributions, what those contributions will be, when such contributions can be made, and what conditions will be necessary to generate these private sector contributions. Bigelow Aerospace will compile this information and provide any additional research and analysis necessary to create a work-product that will describe the relevant companies, private and public sector

contributions, and common commercial/government objectives. This work-product will fulfill Bigelow Aerospace's responsibilities under Gate 1.

2. *Gate 2: Mission Proposals*

Based on the companies, potential contributions, and common objectives identified in Gate 1, Bigelow Aerospace will assess the intersection of public and private interests and capabilities, and use this information to synthesize a series of options to achieve joint goals from low earth orbit, throughout cislunar space and beyond. All of these options will focus on creating a sustainable expansion from low earth orbit to cislunar space including aspects such as lowering public sector costs by leveraging and incorporating business benefits to the commercial industry, capitalizing on rapid implementation, and protecting the government from long-term programmatic risks. Completion of this work-product will fulfill Bigelow Aerospace's obligations under Gate 2.

3. Bigelow Aerospace will provide the necessary personnel and facilities to support all of the work conducted under this Agreement. Additionally, Bigelow Aerospace will commit necessary funding (to cover travel costs associated with implementing this Agreement) and other valuable in-kind services.

B. NASA will use reasonable efforts to:

1. Engage in outward facing communications intended to highlight the importance of the work being conducted under this Agreement and to encourage broad participation.
2. Actively participate in meetings and discussions when requested by Bigelow Aerospace.
3. Provide in-kind support to supplement Bigelow Aerospace's financial and logistics contributions under this Agreement.

ARTICLE 6. SCHEDULE AND MILESTONES

The planned major milestones for the activities defined in the "Responsibilities" clause are as follows:

- (a) Bigelow Aerospace will produce the work-product described in Gate 1 by no later than one hundred (100) calendar days subsequent to the execution of this Agreement.
- (b) Bigelow Aerospace will produce this work-product for Gate 2 by no later than one hundred and twenty (120) calendar days after the successful completion of Gate 1.

ARTICLE 7. FINANCIAL OBLIGATIONS

There will be no transfer of funds between the Parties under this Agreement and each Party will fund its own participation. All activities under or pursuant to this Agreement are subject to the availability of funds, and no provision of this Agreement shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act, (31 U.S.C. § 1341).

ARTICLE 8. PRIORITY OF USE

Any schedule or milestone in this Agreement is estimated based upon the Parties' current understanding of the projected availability of NASA goods, services, facilities, or equipment. In the event that NASA's projected availability changes, Partner shall be given reasonable notice of that change, so that the schedule and milestones may be adjusted accordingly. The Parties agree that NASA's use of the goods, services, facilities, or equipment shall have priority over the use planned in this Agreement. Should a conflict arise, NASA in its sole discretion shall determine whether to exercise that priority. Likewise, should a conflict arise as between two or more non-NASA Partners, NASA, in its sole discretion, shall determine the priority as between those Partners. This Agreement does not obligate NASA to seek alternative government property or services under the jurisdiction of NASA at other locations.

ARTICLE 9. NONEXCLUSIVITY

This Agreement is not exclusive; accordingly, NASA may enter into similar agreements for the same or similar purpose with other private or public entities.

ARTICLE 10. LIABILITY AND RISK OF LOSS

1. Each Party hereby waives any claim against the other Party, employees of the other Party, the other Party's Related Entities (including but not limited to contractors and subcontractors at any tier, grantees, investigators, customers, users, and their contractors or subcontractor at any tier), or employees of the other Party's Related Entities for any injury to, or death of, the waiving Party's employees or the employees of its Related Entities, or for damage to, or loss of, the waiving Party's property or the property of its Related Entities arising from or related to activities conducted under this Agreement, whether such injury, death, damage, or loss arises through negligence or otherwise, except in the case of willful misconduct.
2. Each Party further agrees to extend this cross-waiver to its Related Entities by requiring them, by contract or otherwise, to waive all claims against the other Party, Related Entities of the other Party, and employees of the other Party or of its Related Entities for injury, death, damage, or loss arising from or related to activities conducted under this Agreement. Additionally, each Party shall require that their Related Entities extend this cross-waiver to their Related Entities by requiring them, by contract or otherwise, to waive all claims against the other Party, Related Entities of the other Party, and employees of the other Party or of its Related Entities for injury, death, damage, or loss arising from or related to activities conducted under this Agreement.

ARTICLE 11. INTELLECTUAL PROPERTY RIGHTS - DATA RIGHTS

Information and data exchanged under this Agreement is exchanged without restrictions unless required by national security regulations (e.g., classified information) or as otherwise provided in this Agreement or agreed to by the Parties for specifically identified information or data (e.g., information or data specifically marked with a restrictive notice).

ARTICLE 12. INTELLECTUAL PROPERTY RIGHTS - INVENTION AND PATENT RIGHTS

1. "Related Entity" as used in this Invention and Patent Rights clause means a contractor, subcontractor, grantee, or other entity having a legal relationship with NASA or Partner assigned, tasked, or contracted with to perform activities under this Agreement.
2. The invention and patent rights herein apply to employees and Related Entities of Partner. Partner shall ensure that its employees and Related Entity employees know about and are bound by the obligations under this clause.
3. NASA has determined that 51 U.S.C. § 20135(b) does not apply to this Agreement. Therefore, title to inventions made (conceived or first actually reduced to practice) under this Agreement remain with the respective inventing party(ies). No invention or patent rights are exchanged or granted under this Agreement. NASA and Partner will use reasonable efforts to report inventions made jointly by their employees (including employees of their Related Entities). The Parties will consult and agree on the responsibilities and actions to establish and maintain patent protection for joint invention, and on the terms and conditions of any license or other rights exchanged or granted between them.

ARTICLE 13. USE OF NASA NAME AND EMBLEMS

1. NASA Name and Initials

Partner shall not use "National Aeronautics and Space Administration" or "NASA" in a way that creates the impression that a product or service has the authorization, support, sponsorship, or endorsement of NASA, which does not, in fact, exist. Except for releases under the "Release of General Information to the Public and Media" clause, Partner must submit any proposed public use of the NASA name or initials (including press releases and all promotional and advertising use) to the NASA Associate Administrator for the Office of Communication or designee ("NASA Communications") for review and approval. Approval by NASA Communications shall be based on applicable law and policy governing the use of the NASA name and initials.

2. NASA Emblems

Use of NASA emblems (i.e., NASA Seal, NASA Insignia, NASA logotype, NASA Program Identifiers, and the NASA Flag) is governed by 14 C.F.R. Part 1221. Partner must submit any proposed use of the emblems to NASA Communications for review and approval.

ARTICLE 14. RELEASE OF GENERAL INFORMATION TO THE PUBLIC AND MEDIA

NASA or Partner may, consistent with Federal law and this Agreement, release general information regarding its own participation in this Agreement as desired.

ARTICLE 15. DISCLAIMER OF WARRANTY

Goods, services, facilities, or equipment provided by NASA under this Agreement are provided "as is." NASA makes no express or implied warranty as to the condition of any such goods, services, facilities, or equipment, or as to the condition of any research or information generated under this Agreement, or as to any products made or developed under or as a result of this Agreement including as a result of the use of information generated hereunder, or as to the merchantability or fitness for a particular purpose of such research, information, or resulting product, or that the goods, services, facilities or equipment provided will accomplish the intended results or are safe for any purpose including the intended purpose, or that any of the above will not interfere with privately-owned rights of others. Neither the government nor its contractors shall be liable for special, consequential or incidental damages attributed to such equipment, facilities, technical information, or services provided under this Agreement or such research, information, or resulting products made or developed under or as a result of this Agreement.

ARTICLE 16. DISCLAIMER OF ENDORSEMENT

NASA does not endorse any commercial product, service, or activity. NASA's participation in this Agreement or provision of goods, services, facilities or equipment under this Agreement does not constitute endorsement by NASA. Partner agrees that nothing in this Agreement will be construed to imply that NASA endorses any commercial product or service of Partner resulting from activities conducted under this Agreement.

ARTICLE 17. COMPLIANCE WITH LAWS AND REGULATIONS

(a) The Parties shall comply with all applicable laws and regulations including, but not limited to, safety; security; export control; environmental; and suspension and debarment laws and regulations. Access by a Partner to NASA facilities or property, or to a NASA Information Technology (IT) system or application, is contingent upon compliance with NASA security and safety policies and guidelines including, but not limited to, standards on badging, credentials, and facility and IT system/application access.

(b) With respect to any export control requirements:

(i) The Parties will comply with all U.S. export control laws and regulations, including the International Traffic in Arms Regulations (ITAR), 22 C.F.R. Parts 120 through 130, and the Export Administration Regulations (EAR), 15 C.F.R. Parts 730 through 799, in performing work under this Agreement or any Annex to this Agreement. In the absence of available license exemptions or exceptions, the Partner shall be responsible for obtaining the appropriate licenses or other approvals, if required, for exports of hardware, technical data and software, or for the

provision of technical assistance.

(ii) The Partner shall be responsible for obtaining export licenses, if required, before utilizing foreign persons in the performance of work under this Agreement or any Annex under this Agreement, including instances where the work is to be performed on-site at NASA and where the foreign person will have access to export-controlled technical data or software.

(iii) The Partner will be responsible for all regulatory record-keeping requirements associated with the use of licenses and license exemptions or exceptions.

(iv) The Partner will be responsible for ensuring that the provisions of this Article apply to its Related Entities.

(c) With respect to suspension and debarment requirements:

(i) The Partner hereby certifies, to the best of its knowledge and belief, that it has complied, and shall comply, with 2 C.F.R. Part 180, Subpart C, as supplemented by 2 C.F.R. Part 1880, Subpart C.

(ii) The Partner shall include language and requirements equivalent to those set forth in subparagraph (c)(i), above, in any lower-tier covered transaction entered into under this Agreement.

ARTICLE 18. TERM OF AGREEMENT

This Agreement becomes effective upon the date of the last signature below ("effective date") and shall remain in effect until the completion of all obligations of both Parties hereto, or 3 year(s) from the effective date, whichever comes first.

ARTICLE 19. RIGHT TO TERMINATE

Either Party may unilaterally terminate this Agreement by providing one hundred eighty (180) calendar days written notice to the other Party.

ARTICLE 20. CONTINUING OBLIGATIONS

The rights and obligations of the Parties that, by their nature, would continue beyond the expiration or termination of this Agreement, e.g., "Liability and Risk of Loss," "Intellectual Property Rights," and related clauses shall survive such expiration or termination of this Agreement.

ARTICLE 21. POINTS OF CONTACT

The following personnel are designated as the Points of Contact between the Parties in the performance of this Agreement.

NASA

Technical Point of Contact:

Jason C. Crusan
 Director, Advanced Exploration Systems
 NASA Headquarters
 300 E. Street SW
 Washington, DC 20546
 Telephone: (202) 358-0635
 Email: Jason.C.Crusan@nasa.gov

Administrative Point of Contact:

Jason C. Crusan
 Director, Advanced Exploration Systems
 NASA Headquarters
 300 E. Street SW
 Washington, DC 20546
 Telephone: (202) 358-0635
 Email: Jason.C.Crusan@nasa.gov

Bigelow Aerospace

Technical Point of Contact:

Robert T. Bigelow
 President and Founder
 Bigelow Aerospace
 4640 S. Eastern Ave.
 Las Vegas, NV 89119
 Telephone: (702) 456-1606
 Facsimile: (702) 456-9404

Administrative Point of Contact:

Mike Gold
 Director of DC Operations & Business
 Growth
 Bigelow Aerospace
 2 Wisconsin Circle, Suite 700
 Chevy Chase, MD 20815
 Telephone: (240) 235-6016
 Facsimile: (240) 235-6018

ARTICLE 22. DISPUTE RESOLUTION

Except as otherwise provided in the Article entitled "Priority of Use," the Article entitled "Intellectual Property Rights – Invention and Patent Rights" (for those activities governed by 37 C.F.R. Part 404), and those situations where a pre-existing statutory or regulatory system exists (e.g., under the Freedom of Information Act, 5 U.S.C. § 552), all disputes concerning questions of fact or law arising under this Agreement shall be referred by the claimant in writing to the appropriate person identified in this Agreement as the "Points of Contact." The persons identified as the "Points of Contact" for NASA and the Partner will consult and attempt to resolve all issues arising from the implementation of this Agreement. If they are unable to come to agreement on any issue, the dispute will be referred to the signatories to this Agreement, or their designees, for joint resolution. If the Parties remain unable to resolve the dispute, then the NASA signatory or that person's designee, as applicable, will issue a written decision that will be the final agency decision for the purpose of judicial review. Nothing in this Article limits or prevents either Party from pursuing any other right or remedy available by law upon the issuance of the final agency decision.

ARTICLE 23. MODIFICATIONS

Any modification to this Agreement shall be executed, in writing, and signed by an authorized representative of NASA and the Partner.

ARTICLE 24. ASSIGNMENT

Neither this Agreement nor any interest arising under it will be assigned by the Partner or NASA without the express written consent of the officials executing, or successors, or higher-level officials possessing original or delegated authority to execute this Agreement.

ARTICLE 25. APPLICABLE LAW

U.S. Federal law governs this Agreement for all purposes, including, but not limited to, determining the validity of the Agreement, the meaning of its provisions, and the rights, obligations and remedies of the Parties.

ARTICLE 26. INDEPENDENT RELATIONSHIP

This Agreement is not intended to constitute, create, give effect to or otherwise recognize a joint venture, partnership, or formal business organization, or agency agreement of any kind, and the rights and obligations of the Parties shall be only those expressly set forth herein.

ARTICLE 27. SIGNATORY AUTHORITY

The signatories to this Agreement covenant and warrant that they have authority to execute this Agreement. By signing below, the undersigned agree to the above terms and conditions.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

BIGELOW AEROSPACE, LLC

BY: William H. Gerstenmaier
William H. Gerstenmaier
Associate Administrator for Human Exploration and Operations

BY: Robert T. Bigelow
Robert T. Bigelow
Managing Member

DATE: 25 March 2013

DATE: 3/22/13