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112TH CONGRESS
2D SESSION

S. 3661

To reaffirm and amend the National Aeronautics and Space Administration Authorization Act of 2010, and for other purposes.

IN THE SENATE OF THE UNITED STATES

DECEMBER 5, 2012

Mr. NELSON of Florida (for himself and Mrs. HUTCHISON) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

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A BILL

To reaffirm and amend the National Aeronautics and Space Administration Authorization Act of 2010, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Space Exploration Sustainability Act''.

SEC. 2. FINDINGS.

Congress makes the following findings:

(1) A robust and balanced space program enhances the United States long-term national and economic security by—

(A) inspiring students to pursue disciplines in science, technology, engineering, and mathematics;

(B) stimulating development of advanced technologies with widespread applications;

(C) increasing the United States technological competitiveness; and

(D) enhancing global prosperity and security through cooperation in shared interests, such as advancement of science, understanding of Earth and the universe, and protection from space borne threats, such as asteroids.

(2) The Nation's space program should include endeavors that balance—

(A) national security space and civil space;

(B) robotic and human exploration;

(C) advancement of scientific knowledge and engagement of the general public;

(D) U.S. Government led launch capability development, including the Space Launch System and multi-purpose crew vehicle, and part-

nerships with commercial and international entities;

(E) advancement of the space frontier and stimulation of commerce within Earth Orbit; and

(F) peering outward to further understanding of the universe and observing Earth to expand knowledge of our home planet.

(3) The National Aeronautics and Space Administration Authorization Act of 2010 (42 U.S.C. 18301 et seq.) provides for a robust and balanced national space program.

SEC. 3. GOALS AND OBJECTIVES.

Section 202 of the National Aeronautics and Space Administration Authorization Act of 2010 (42 U.S.C. 18312) is amended—

(1) by amending subsection (a) to read as follows:

''(a) LONG-TERM GOAL.—The long-term goal of the human space flight and exploration efforts of NASA shall be to sustainably expand permanent human presence beyond low-Earth orbit and to do so, where practical, in a manner involving international partners and expanding economic activity in space.''; and

(2) in subsection (b)(2), by inserting ''and expanding throughout cis-lunar space and beyond'' after ''infrastructure''.

SEC. 4. REPORT ON CIS-LUNAR SPACE.

(a) IN GENERAL.—Not later than 120 days after the date of enactment of this Act, the Administrator of the National Aeronautics and Space Administration shall submit to Congress a strategy to achieve the long-term goal of sustainably expanding a human presence beyond low-Earth orbit under section 202(a) of the National Aeronautics and Space Administration Authorization Act of 2010 (42 U.S.C. 18312(a)) through robust utilization of cis-lunar space.

(b) REQUIREMENTS.—The strategy shall include a discussion of—

(1) the utility of an expanded permanent human presence in cis-lunar space to enable missions to the lunar surface, asteroids, the Mars system, and other destinations of interest for future human exploration;

(2) the utility of an expanded permanent human presence in cis-lunar space to economic, scientific, and technological advances;

(3) the opportunities for—

(A) international partner collaboration toward the establishment and continuance of an expanded permanent human presence in cis-lunar space;

(B) international partner contributions to the missions listed under paragraph (1) that are uniquely enabled by mission architectures that make use of an expanded and persistent human presence in cis-lunar space;

(C) commercial industry participation toward the expansion and continuance of permanent human presence in cis-lunar space;

(D) commercial industry contributions to the missions listed under paragraph (1) that are uniquely enabled by mission architectures that make use of an expanded and persistent human presence in cis-lunar space; and

(E) commercial ventures that result from an expanded and persistent human presence in cis-lunar space;

(4) the opportunities and uses for the National Aeronautics and Space Administration managed allocation of the International Space Station National Laboratory, including a specific discussion of high priority scientific and technological developments

that use the International Space Station toward expanding and sustaining a human presence in cis-lunar space; and

(5) a range of exploration mission architectures for the missions listed under paragraph (1).

(c) COMPARISON OF ARCHITECTURES.—

(1) IN GENERAL.—The strategy shall include a comparison of architectures that use an expanded and persistent human presence in cis-lunar space and architectures that do not, with a primary objective of identifying the architectures and approaches that—

(A) best support the long-term goal under section 202(a) of the National Aeronautics and Space Administration Authorization Act of 2010 (42 U.S.C. 18312(a)); and

(B) are enabled by the transportation capabilities developed under titles III and IV of the National Aeronautics and Space Administration Authorization Act of 2010 (42 U.S.C. 18301 et seq.).

(2) FACTORS.—Factors to be considered in the comparison shall include recurring and non-recurring cost, safety, sustainability, opportunities for international collaboration, enabling of new markets

and opportunities for commercial industry, compelling scientific opportunities, flexibility of the architecture to adjust to evolving technologies, and leadership and priorities over time.

(d) IMPLEMENTATION PLAN.—The strategy shall include a plan that establishes a method and schedule for implementation of the strategy. The implementation plan shall include—

(1) proposed Program Formulation events;

(2) Program Critical Design Reviews;

(3) System Integration Reviews;

(4) Systems Assembly, Integration and Test milestones; and

(5) schedules of planned test launches and events, up to and including initial missions.

SEC. 5. ASSURANCE OF CORE CAPABILITIES.

Section 203 of the National Aeronautics and Space Administration Authorization Act of 2010 (42 U.S.C. 18313) is amended by adding at the end the following:

"(c) ASSURANCE OF CORE CAPABILITIES.—The Administrator shall proceed with the utilization of the ISS, technology development, and follow-on transportation systems, including the Space Launch System, multi-purpose crew vehicle, and commercial crew and cargo transpor-

tation capabilities authorized by this Act in a manner that ensures—

"(1) that these capabilities remain inherently complimentary and interrelated;

"(2) a balance of the development, sustainment, and use of each of these capacities, which are of critical importance to the viability and sustainability of the U.S. space program; and

"(3) that resources required to support the timely and sustainable development of these capabilities are not derived from a reduction in resources from one capability as a means of increasing resources to support another capability.".

SEC. 6. EXTENSION OF CERTAIN SPACE LAUNCH LIABILITY PROVISIONS.

Section 50915(f) of title 51, United States Code, is amended by striking "December 31, 2012" and inserting "December 31, 2014".

SEC. 7. EXEMPTION FROM INKSNA.

Section 7(1) of the Iran, North Korea, and Syria Nonproliferation Act (50 U.S.C. 1701 note) is amended to read as follows:

"(1) EXTRAORDINARY PAYMENTS IN CONNECTION WITH THE INTERNATIONAL SPACE STATION.—The term 'extraordinary payments in connection

with the International Space Station' means payments in cash or in-kind made or to be made by the United States Government for work on the International Space Station which the Russian Government pledged at any time to provide at its expense.''.

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