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110TH CONGRESS
2D SESSION

H. R. 7062

To authorize the Administrator of the National Aeronautics and Space Administration to develop a plan to guarantee access to the International Space Station, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

SEPTEMBER 25, 2008

Mr. FEENEY (for himself, Mr. PEARCE, and Mr. WELDON of Florida) introduced the following bill; which was referred to the Committee on Science and Technology, and in addition to the Committee on Foreign Affairs, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

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A BILL

To authorize the Administrator of the National Aeronautics and Space Administration to develop a plan to guarantee access to the International Space Station, 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; TABLE OF CONTENTS.

(a) SHORT TITLE.—This Act may be cited as the ''International Space Station Guaranteed Access Plan For

Integrated Launch and Low Earth Rendezvous Act'' or the ''ISS GAP FILLER Act''.

(b) TABLE OF CONTENTS.—The table of contents for this Act is as follows:

SEC. 2. FINDINGS.

Congress finds the following:

(1) The United States has been the preeminent leader in human spaceflight for nearly 50 years. Under NASA's leadership, this Nation has engaged many countries, including former adversaries, in a series of peaceful space missions that have contrib-

uted to mutual trust and understanding that continue to this day.

(2) The planning and development of the International Space Station is the culmination of many of these collaborations, bringing together through NASA's leadership a number of foreign partners to invest and participate in its construction and operation. It is the most technologically challenging and complex project ever undertaken. The United States has been the largest contributor, having invested approximately $100,000,000,000 developing, building, and transporting components of the International Space Station to orbit.

(3) Based on previous agreements signed in 1998 between NASA and the Russian Space Agency ROSCOSMOS, the United States is obligated to provide crew rescue capability for 4 space station crew members at all times. With the space station crew size currently limited to 3, the United States is fulfilling its space station emergency crew rescue obligation by paying Russia for those capabilities using the 3-person Soyuz capsules, which are the only manned spacecraft capable of remaining on-orbit for up to 6 months at a time.

(4) In January 2004, the President directed NASA to honor our international commitments to complete the assembly of the International Space Station and retire the Space Shuttle by 2010, as recommended by the Columbia Accident Investigation Board. The directive also called for the development of a new system to enable astronauts to travel beyond low Earth orbit. This system, the Constellation System, consisting of the Orion crew exploration vehicle and Ares launch vehicle, would also be capable of traveling to the International Space Station but would not be available until 4 years after the projected retirement of the Space Shuttle. This plan was ratified by Congress in the National Aeronautics and Space Administration Authorization Act of 2005 (Public Law 109–155).

(5) Congress reaffirms the goals of the United States Vision for Space Exploration to return to the Moon as a first step to further exploration of the solar system. In order to accomplish these goals, it is imperative to develop the Ares V launch system, giving the United States the heavy lift capability to return humans to the Moon, and to places beyond.

(6) The plan also called for NASA to rely on Russia to fly United States astronauts to the Inter-

national Space Station during the gap between Shuttle retirement and the initial operational capability of the new Constellation system. In addition to buying Soyuz vehicles from Russia to fulfill the U.S. crew rescue obligation, NASA plans to buy Soyuz launch services from Russia at a cost that has not yet been negotiated but is expected to exceed $1,000,000,000.

(7) One of the guiding principles articulated in National Security Presidential Directive 49, United States National Space Policy, states, ''The United States considers space capabilities—including the ground and space segments and supporting links—vital to its national interests. Consistent with this policy, the United States will preserve its rights, capabilities, and freedom of action in space; dissuade or deter others from either impeding those rights or developing capabilities intended to do so; take those actions necessary to protect its space capabilities; respond to interference; and deny, if necessary, adversaries the use of space capabilities hostile to U.S. national interests.''

(8) In order to make purchases from Russia, NASA has been granted an exception, through the year 2011, to the Iran, North Korea, and Syria

Nonproliferation Act (Public Law 106–178). Since there is roughly a 3-year lead time to build Soyuz vehicles, NASA is concerned that unless the 110th Congress extends the exception, NASA faces a lack of Soyuz capabilities beginning in 2012, which effectively ends United States access to the International Space Station.

(9) The International Space Station is nearing completion, with remaining missions scheduled to be concluded by summer 2010. The Station's crew size will increase to 6, enabling the full utilization of its laboratories and research facilities in a micro-gravity environment for the decade to come. Routine and assured access to the Station is critical if we are to capitalize on our investment.

(10) Other nations are now investing heavily to develop manned spaceflight and robotic capabilities. During the gap following retirement of the Space Shuttle, these nations are expected to enhance their space capabilities, jeopardizing our Nation's preeminence and our ability to influence other spacefaring nations, contrary to the national policy (National Security Presidential Directive 49). United States influence in world affairs and our ability to shape future peaceful uses in space will be imperiled.

(11) Congress believes it is imperative that NASA reduce our Nation's dependence on foreign launch providers to access the International Space Station. While some lapse in United States manned spaceflight capabilities is tolerable, the gap has expanded to 5 years, and if development problems are encountered, the gap will continue to grow. A 5-year or more gap is too long to rely on other nations to access the International Space Station, the bulk of which we have provided.

(12) Without assured access, the United States may have to abandon the International Space Station until the Constellation system is operational, giving other nations exclusive access to a laboratory largely built with United States technology and funding. That situation is unacceptable. Clearly, a new approach is needed, and this Act is a first step in a new direction.

(13) Extending Space Shuttle operations for 2 additional years will reduce the gap and allow the United States to evaluate the capabilities of emerging space-faring nations. Based on their technological progress and their policies and programs, future United States policymakers will decide whether

it is appropriate to continue funding the Space Shuttle.

(14) The cost of extending Space Shuttle operations shall be funded by additional appropriations to NASA. It is contrary to Congress' intent that extended Space Shuttle operations will be funded by cutting Constellation development or by reducing NASA's science and aeronautics research programs.

SEC. 3. DEFINITIONS.

In this Act:

(1) ADMINISTRATOR.—The term ''Administrator'' means the Administrator of the National Aeronautics and Space Administration.

(2) ISS.—The term ''ISS'' means the International Space Station.

(3) NASA.—The term ''NASA'' means the National Aeronautics and Space Administration.

TITLE I—AUTHORIZATION OF APPROPRIATIONS

SEC. 101. AUTHORIZATION OF APPROPRIATIONS.

(a) IN GENERAL.—In addition to amounts otherwise authorized for NASA, there are authorized to be appropriated to the Administrator to remain available until expended—

(1) for fiscal year 2010 for Space Shuttle operations, $3,333,700,000, of which—

(A) $300,000,000 shall be for an additional Space Shuttle flight to deliver the Alpha Magnetic Spectrometer to the International Space Station; and

(B) $50,000,000 shall be to augment funding for Space Operations Mission Directorate program reserves and Shuttle Transition and Retirement activities;

(2) for fiscal year 2010 for Exploration Systems Mission Directorate, $2,000,000,000 to be used to accelerate the initial operating capability of the Orion Crew Exploration Vehicle and the Ares I Crew Launch Vehicle and associated ground support systems;

(3) for fiscal year 2011 for Space Shuttle operations, $3,094,400,000, of which $50,000,000 shall be to augment funding for Space Operations Mission Directorate program reserves and Shuttle Transition and Retirement activities; and

(4) for fiscal year 2012 for Space Shuttle operations, $3,156,000,000, of which $50,000,000 shall be to augment funding for Space Operations Mission

Directorate program reserves and Shuttle Transition and Retirement activities.

(b) INTENT OF CONGRESS.—It is the intent of Congress that amounts authorized to be appropriated in subsection (a) shall be in addition to, and shall not supplant, amounts appropriated for NASA's other mission directorates.

TITLE II—SPACE SHUTTLE OPERATIONS

SEC. 201. FLIGHT MANIFEST.

(a) BASELINE MANIFEST.—In addition to the Space Shuttle flights listed as part of the baseline flight manifest as of January 1, 2008, the Utilization flights ULF–4 and ULF–5 shall be considered part of the Space Shuttle baseline flight manifest to ensure adequate logistics and on-orbit spares are available to the International Space Station.

(b) ADDITIONAL FLIGHT TO DELIVER THE ALPHA MAGNETIC SPECTROMETER TO THE ISS.—In addition to the flying of the baseline manifest described in subsection (a), the Administrator shall take all necessary steps to fly 1 additional Space Shuttle flight to deliver the Alpha Magnetic Spectrometer to the International Space Station.

SEC. 202. AUTHORIZATION OF SPACE SHUTTLE OPERATIONS THROUGH FISCAL YEAR 2012.

(a) AUTHORIZATION.—NASA is authorized—

(1) to continue Space Shuttle operations through fiscal year 2012; and

(2) to maintain the capability to safely fly at least 2 Space Shuttle missions per year through fiscal year 2012.

(b) REPORT TO CONGRESS.—Not later than 90 days after the date of enactment of this Act, the Administrator shall transmit to the Committee on Science and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate the complete results of the Shuttle Extension Study. The study shall include an analysis of the actions necessary, and the anticipated costs, to continue safely operating the Space Shuttle through fiscal year 2012.

SEC. 203. SUSPENSION OF ACTIVITIES THAT WOULD INHIBIT OR PRECLUDE CONTINUED OPERATION OF THE SPACE SHUTTLE THROUGH FISCAL YEAR 2012.

The Administrator shall suspend any activity of NASA that, if continued, would inhibit or preclude the continued safe and effective operation of the Space Shuttle through fiscal year 2012.

SEC. 204. SHUTTLE RECERTIFICATION.

Not later than 6 months after the date of enactment of this Act, the Administrator shall transmit to the Committee on Science and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a complete assessment of the actions that have been taken and are planned to be taken to fully comply with the intent of the recertification recommendation of the Columbia Accident Investigation Board. The report shall include an analysis of the actions necessary and the anticipated costs to comply with the recertification requirements of the Space Shuttle or a rationale for waiving those requirements through fiscal year 2012.

TITLE III—ALTERNATIVE ACCESS TO INTERNATIONAL SPACE STATION

SEC. 301. SENSE OF CONGRESS.

It is the sense of the Congress that sole dependence on a foreign country for human access to space and to the International Space Station fails to ensure our freedom of action in space, fails to protect our space capabilities, and fails to safeguard our approximately $100,000,000,000 investment in the International Space Station. Furthermore, such total dependence on a foreign

country diminishes our influence with other space-faring nations.

SEC. 302. DOMESTIC CREWED VEHICLE DEMONSTRATION.

(a) IN GENERAL.—Not later than 3 months after the date of enactment of this Act, the Administrator shall issue a notice of intent and solicit proposals to enter into a funded, competitively awarded Space Act Agreement with 2 or more commercial entities for a crewed vehicle demonstration.

(b) GOAL OF CREWED VEHICLE DEMONSTRATION.—The goal of the crewed vehicle demonstration is the design, development, and rapid prototyping of a capsule and associated crew escape system capable of carrying at least 2 astronauts to, and docking with, the International Space Station and returning such astronauts safely to Earth. Such a system must be capable of being carried to the ISS using existing United States launch vehicles, such as Evolved Expendable Launch Vehicle-class vehicles, or existing European Space Agency launch vehicles, such as the Ariane 5.

SEC. 303. HUMAN RATING REQUIREMENTS.

Not later than 6 months after the date of enactment of this Act, the Administrator, in consultation with other agencies as appropriate, shall transmit to the Committee on Science and Technology of the House of Representa-

tives and the Committee on Commerce, Science, and Transportation of the Senate a comprehensive evaluation of the actions necessary, and the estimated costs, to human-rate Evolved Expendable Launch Vehicles. The report shall include a plan to accomplish upgrading Evolved Expendable Launch Vehicles to enable human missions.

SEC. 304. INTERNATIONAL CREWED VEHICLE INITIATIVE.

(a) FINDINGS.—Congress finds the following:

(1) The European Space Agency (ESA) has been a long-time friend and ally of the United States in both manned and unmanned space ventures.

(2) ESA has demonstrated impressive capabilities with the Columbus orbital laboratory module, the Ariane launch vehicle, and the Automated Transfer Vehicle, which has successfully demonstrated the ability to rendezvous and dock with the International Space Station.

(3) Recent proposals have been under review to develop a European manned space transportation capability based on the Automated Transfer Vehicle.

(4) If such a transportation capability could be developed, it might offer another alternative for crewed access to the International Space Station, thereby improving the safety and redundancy for the

overall human-rated Earth-to-orbit transportation system.

(b) INITIATE DISCUSSIONS.—Immediately after the date of enactment of this Act, the Administrator shall initiate discussions with the appropriate representatives of the European Space Agency to determine the feasibility of jointly developing a human-rated space transportation system based on the Automated Transfer Vehicle and whether such system could be developed on an accelerated schedule to provide a backup capability to the Russian Soyuz.

SEC. 305. ISS CREW TRANSFER AND CREW RESCUE CAPABILITY.

(a) EVALUATION OF OPTIONS.—In order to stimulate and enable the rapid design, development, and prototyping of a means of providing crew transfer and crew rescue services for the International Space Station, the Administrator shall evaluate and compare—

(1) the proposals submitted under section 302 for commercial crewed vehicle demonstrations and the feasibility of upgrading Evolved Expendable Launch Vehicles to enable human missions as described in section 303; and

(2) the feasibility of developing an Automated Transfer Vehicle-based crew transfer and crew res-

cue capability with the European Space Agency under section 304.

(b) REPORT OF EVALUATION.—Not later than 6 months after the date of enactment of this Act, the Administrator, in consultation with other agencies, shall—

(1) select the course of action, based on the evaluation under subsection (a), that will best provide safe and effective crew transfer and crew rescue services for the International Space Station; and

(2) transmit to the Committee on Science and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a report describing the evaluation and comparison under subsection (a) and the rationale for the selection made in paragraph (1), including the decision-making criteria used by the Administrator.

(c) CONTRACTING AUTHORITY.—On the 30th day after the report required by subsection (b)(2) has been transmitted, the Administrator shall have the authority to enter into contracts and take any other actions necessary to further the course of action selected under subsection (b)(1).

(d) CREW TRANSFER AND CREW RESCUE SERVICES CONTRACT.—

(1) IN GENERAL.—If the Administrator selects the commercial crewed vehicle demonstration option and if a commercial provider demonstrates the capability to provide International Space Station crew transfer and crew rescue services and to satisfy NASA ascent, reentry, and International Space Station proximity operations safety requirements, NASA shall enter into a contract with that commercial provider for a portion of NASA's anticipated International Space Station crew transfer and crew rescue requirements from the time the commercial provider commences operations under contract with NASA through calendar year 2016, with an option to extend the period of performance through calendar year 2020.

(2) INTENT OF CONGRESS.—To the extent that the Administrator selects the commercial crewed vehicle demonstration option, it is the intent of Congress that the Administrator shall, to the maximum extent practicable—

(A) facilitate the transfer of NASA-developed technologies to potential United States commercial crew transfer and rescue service providers, consistent with United States law; and

(B) make use of United States commercially provided International Space Station crew transfer and crew rescue services, if those commercial services have demonstrated the capability to meet NASA-specified ascent, reentry, and International Space Station proximity operations safety requirements.

(e) AUTHORIZATION OF APPROPRIATIONS.—

(1) IN GENERAL.—There are authorized to be appropriated to the Administrator for the program described in this section—

(A) $100,000,000 for fiscal year 2010;

(B) $175,000,000 for fiscal year 2011; and

(C) $300,000,000 for fiscal year 2012.

(2) SPECIFICATIONS.—The amounts authorized in paragraph (1) are to remain available until expended and are in addition to amounts authorized to be appropriated under title I.

(f) ADDITIONAL TECHNOLOGIES AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Administrator for fiscal year 2011 $50,000,000, to remain available until expended, for the provision of International Space Station-compatible docking adaptors and other relevant technologies to the entity

that successfully demonstrates the commercial crewed vehicle capability.

SEC. 306. COMMERCIAL SPACE LAUNCH RANGE STUDY.

(a) STUDY BY INTERAGENCY COMMITTEE.—The Director of the Office of Science and Technology Policy shall work with other appropriate Federal agencies to establish an interagency committee to conduct a study to—

(1) identify the issues and challenges associated with establishing a space launch range and facilities that are fully dedicated to commercial space missions in close proximity to Federal launch ranges or other Federal facilities; and

(2) develop a coordinating mechanism such that States seeking to establish such commercial space launch ranges will be able to effectively and efficiently interface with the Federal Government concerning issues related to the establishment of such commercial launch ranges in close proximity to Federal launch ranges or other Federal facilities.

(b) REPORT.—The Director shall, not later than May 31, 2010, submit to the Committee on Science and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a report on the results of the study conducted under subsection (a).

SEC. 307. ORION CREW EXPLORATION VEHICLE USE.

In order to efficiently utilize the advanced capabilities of the Orion Crew Exploration Vehicle, NASA shall restrict the use of the Orion Crew Exploration Vehicle to only those missions carrying astronauts beyond low Earth orbit, to the maximum extent practicable.

SEC. 308. EXPLORATION CREW RESCUE.

In order to maximize the ability to rescue astronauts whose space vehicles have become disabled, the Administrator shall enter into discussions with the appropriate representatives of space-faring nations who have or plan to have crew transportation systems capable of orbital flight or flight beyond low Earth orbit for the purpose of agreeing on a common docking system standard that is not proprietary to any one country or manufacturer.

TITLE IV—AUTHORIZATION OF EXTRAORDINARY PAYMENTS IN CONNECTION WITH THE INTERNATIONAL SPACE STATION

SEC. 401. AUTHORIZATION OF EXTRAORDINARY PAYMENTS.

(a) AUTHORIZATION.—Notwithstanding the restrictions contained in section 6 of the Iran, North Korea, and Syria Nonproliferation Act (Public Law 106–178), the President is authorized to make extraordinary payments in connection with the International Space Station to the

Russian Federal Space Agency, or any organization or entity under the jurisdiction or control of the Russian Federal Space Agency, for equipment and services related to transportation to and from, rescue from, and provision, maintenance, and operation of, the International Space Station.

(b) LIMITATIONS.—The authority under subsection (a)—

(1) shall be limited to payments for services provided before July 1, 2016; and

(2) may not be used for the purchase of—

(A) any cargo services provided by a Progress vehicle after December 31, 2011; or

(B) any crew transportation or rescue services provided by a Soyuz vehicle after a United States commercial provider of crew transportation and rescue services demonstrates the capability to meet mission requirements of the International Space Station.

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