I

111TH CONGRESS
1ST SESSION

H. R. 1962

To authorize the Space Shuttle to be flown from 2010 through 2015, and to authorize appropriations for the National Aeronautics and Space Administration for this purpose.

IN THE HOUSE OF REPRESENTATIVES

APRIL 2, 2009

Mr. POSEY (for himself and Ms. WASSERMAN SCHULTZ) introduced the following bill; which was referred to the Committee on Science and Technology

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A BILL

To authorize the Space Shuttle to be flown from 2010 through 2015, and to authorize appropriations for the National Aeronautics and Space Administration for this purpose.

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 ''American Space Access Act''.

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

(2) The planning and development of the International Space Station (ISS) 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 tens of billions of dollars developing, building, and transporting components of the International Space Station to orbit.

(3) 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, ca-

pabilities, 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''.

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

(5) 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. 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).

(6) Other nations are now investing heavily to develop manned spaceflight and robotic capabilities. During the planned 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.

(7) Congress believes it is imperative that NASA reduce our Nation's dependence on foreign launch providers to access the International Space Station. The planned gap has expanded to 5 years, and if development problems are encountered, the gap will continue to widen. 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.

(8) Unless Space Shuttle operations are extended beyond 2010, the United States will be heavily reliant on Russia to supply crew and possibly cargo transport services to the International Space Station during the gap period of 2010 through 2015. There is no other proven and reliable means of transporting our astronauts into space during this period.

(9) The United States should not increase its reliance on Russia to transport American astronauts into space, given the increasingly divergent views and posturing from Russia. Russia opposes the United States plan to base an antimissile radar system in the Czech Republic and interceptor missiles in Poland to counter the threat posed by the Iranian nuclear weapons and missile programs. Russia also suspended its participation in the Conventional Forces in Europe (CFE) treaty, one of the most significant arms control agreements of the Cold War years. Additionally, Russia continues to arm some of America's adversaries. Despite United States objections, Russia provided billions of dollars worth of weapons to the regime of Hugo Chavez in Venezuela in 2006. Such meddling is a possible violation of the Monroe Doctrine and a throwback to the Cold War

era. Even more troublesome is the Russian history of weapons trading with Iran. Russia has supplied advanced conventional arms technology, missile technology, and nuclear technologies to this very anti-American regime.

(10) In the late 1990s, Russia fell short in fulfilling its commitment to the International Space Station.

(11) NASA was forced to transfer hundreds of millions of dollars to enable the Russians to complete the critical Space Station service module Zvezda, without which the International Space Station could not operate.

(12) Russia delayed completion of the Zvezda service module for several years. Under the International Space Station agreement, the Russian government had committed to fund as well as build the Zvezda service module. Subsequent transfers from the United States, in order to complete the module, reflect serious Russian mismanagement in the field of space.

(13) In 2000, while Russia was failing to meet its commitment to the International Space Station, Russia was diverting financial and human resources away from fulfilling its International Space Station

commitments in order to keep the Russian's Mir Space Station aloft.

(14) Russia's past shortcomings in fulfilling commitments to its international space partners should serve as a warning to the United States as we consider increased reliance on Russian space services in the future. It is not prudent for the United States to depend on Russia for access to space given our past experience with this relationship.

(15) The United States has already invested tens of billions of dollars in the International Space Station program since its inception.

(16) There is much research of great value being conducted in space, and on the International Space Station, that may yield tremendous gains. Research conducted on the International Space Station may help scientists back on Earth develop medicines to treat diseases and help us better understand the Earth's climate. Many scientists believe that the microgravity environment of space will enable the development of new drugs, vaccines, and other therapies. Equipment on the International Space Station will monitor stratospheric gases, and investigate ozone chemistry.

(17) To ensure that the United States realizes the dividends from the considerable investment we have made in the International Space Station, we need to ensure continued access to space for our astronauts. However, NASA's plan for transport of crew to and from the International Space Station fails to provide necessary redundancies to provide assured access to space.

(18) NASA anticipates that the Russian Soyuz spacecraft will be the only vehicle for astronaut crew rotation to the International Space Station after 2010. From 2011 until the planned operation of Orion in 2015, NASA likely has no other option for transporting American astronauts to space other than on Russian vehicles.

(19) Due to NASA's lack of a backup plan for reliance on the Russians for transport of American astronauts to space, the United States needs a better approach. The best approach is the Space Shuttle, a proven, domestic source of space transport for assured access to space, including the International Space Station, for crew and cargo transport.

(20) With 2 Shuttle missions per year during the human spaceflight program flight gap between Shuttle and Orion, currently scheduled from 2010

through 2015, we can replace our need to rely on the Russians for crew rotation for the International Space Station.

(21) Savings from replacing Russian transport services to the International Space Station with the Space Shuttle would pay for a portion of the costs for flying 2 Space Shuttle missions per year.

(22) Only by closing the gap between 2010 and 2015, or until the Orion is operational, will our Nation be able to keep our Nation's highly skilled and critically important spaceworkers and engineers gainfully employed, and mitigate the loss of critical skills.

(23) By extending Space Shuttle operations, NASA may realize considerable savings by no longer having to pay retention bonuses to critical space workers. But retention bonuses would not be the only added costs associated with the end of Space Shuttle operations when critical skilled workers leave NASA or its contractors. Recruitment incentives for new workers and contract cost increases could also be incurred by NASA since the majority of the Kennedy Space Center's workforce are contractors.

(24) The success of the Constellation program will depend on having the most skilled and experi-

enced workforce possible. The workforce gap, as currently envisioned by NASA, will jeopardize this. NASA has acknowledged that thousands of critical space workers will lose their jobs in the transition from the Space Shuttle to the Constellation program. Continued operation of the Space Shuttle, but on a reduced flight requirement, while also integrating these workers into the Orion program, is the best way to retain many of these critical workers and skill sets.

(25) An August 2007 study by the Government Accountability Office, ''NASA Progress Made on Strategic Human Capital Management, but Future Program Challenges Remain,'' stated that ''the agency as a whole faces challenges in recruiting and retaining highly experienced senior-level engineers in certain specialties. NASA's principal workforce challenge will be faced in the transition to the next generation of human space flight systems.''.

SEC. 3. EXTENDING SPACE SHUTTLE OPERATIONS.

(a) USE OF SPACE SHUTTLE FOR ACCESS TO SPACE.—NASA shall fly not less than 2 Space Shuttle missions per year for crew transport, instead of purchasing Russian crew and cargo services, for the period beginning in 2010 and ending—

(1) in 2015;

(2) when Orion is operational; or

(3) when NASA has certified the safe operation of an available United States commercial capability, whichever occurs first. There are authorized to be appropriated to NASA such sums as may be necessary, in addition to amounts otherwise authorized, to carry out this subsection.

(b) INSUFFICIENT FUNDING.—Except as provided under subsection (c), the requirements of this Act shall have effect only to the extent that sufficient funding is appropriated, as authorized under subsection (a). Sufficient funding is defined as funds required to fully or partially comply with the requirements of this Act.

(c) REPORT TO CONGRESS.—NASA shall report to Congress not later than 90 days after the date of enactment of this Act on the specific costs and actions needed to extend the operation of the Space Shuttle in accordance with this Act.

(d) OPERATIONAL EFFICIENCIES.—As soon as possible, but no later than March 31, 2011, NASA shall investigate areas of reduced operations and enhanced cost savings and implement those that do not impinge the safe operation of the Space Shuttle program, including the following:

(1) The possible retirement of one Space Shuttle orbiter, leaving 2 to remain operational, in a manner that ensures the safe operation of the Space Shuttle program.

(2) Significantly reducing changes to the design of the Space Shuttle orbiters, in a manner that ensures the safe operation of the Space Shuttle program. This shall include changes to the Space Shuttle software systems.

(3) Significantly reducing Space Shuttle orbiter configuration operations and payload configuration operations, in a manner that ensures the safe operation of the Space Shuttle program.

(4) Maximizing the use of shared personnel between the continued operation of the Space Shuttle and Constellation and other NASA programs.

(e) FACILITIES.—If conflicts arise in NASA's efforts to allocate facilities, personnel, and other resources in order to fly the Space Shuttle as well as continue the development of Constellation, then NASA shall identify in a report to Congress in advance such conflicts, along with recommendations as to how they can be mitigated.

SEC. 4. EXPEDITING CONSTELLATION.

(a) REPORT TO CONGRESS.—Not later than 3 months after the date of enactment of this Act, NASA

shall report to Congress on the amount of funding needed to expedite the schedule of the Orion Crew Exploration Vehicle and the Ares I Crew Vehicle and associated ground support systems. Such report shall—

(1) contain a description and timeline for an expedited schedule to bring Orion and Ares I on line sooner; and

(2) outline the additional funding needed to achieve this expedited schedule.

(b) AUTHORIZATION OF APPROPRATIONS.—There are authorized to be appropriated to NASA such sums as may be necessary to achieve the goals of this section. Such funding shall be in addition to any funding needed to continue operations of the Shuttle beyond 2010.

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