

National Aeronautics and Space Administration  
Office of the Administrator  
Washington, DC 20546-0001



November 26, 2013

The Honorable Eddie Bernice Johnson  
Ranking Member  
Committee on Science, Space, and Technology  
U.S. House of Representatives  
Washington, DC 20515

Dear Congresswoman Johnson:

The National Aeronautics and Space Administration (NASA) submits the enclosed proposed amendment to the Commercial Space Launch Act (CSLA), as amended, for Congress' consideration. The requirement for this legislative proposal emerged after the Agency's submission of other legislative proposals earlier this year, as NASA and the Federal Aviation Administration (FAA) attorneys began to discuss issues related to potential contracts for use of commercial providers for transportation of astronauts to the International Space Station (ISS).

This proposal would add the classification of "Government Astronaut" to the Commercial Space Launch Act (CSLA). Under the current FAA statutory approach for commercial human spaceflight, only two classes of voyagers are recognized, neither of which is suitable for astronauts flying on commercially-developed launch vehicles:

- The first is "Crew," defined as employees of the licensee. Government Astronauts will not be employees of the licensee; instead, they will be employees of NASA, the Department of Defense, or ISS foreign government agencies. In the CSLA, "Crew" is also defined as individuals who perform operational functions on the vehicle. Therefore, because Government Astronauts cannot qualify as Crew, the CSLA raises the issue for NASA whether Government Astronauts can perform operational functions.
- The second is "Space Flight Participant," viewed primarily as passengers who may perform emergency operations such as those related to smoke detection and fire suppression. Unfortunately, in the absence of an amendment, the CSLA would classify Government Astronauts as Space Flight Participants since they fall outside the definition of Crew, even in cases where Government Astronauts may be the only persons onboard.

The current CSLA classification governing commercial human spaceflight made sense at the time of passage in 2004, because NASA's Shuttle program was still underway, and a future where NASA would fly its astronauts on commercial vehicles was not envisioned. The CSLA was developed to safely open outer space to the

emerging commercial human spaceflight tourism industry in parallel with NASA. The proposed new classification of "Government Astronaut" will make clear that these individuals can perform operational tasks on the vehicle equivalent to that allowed for Crew or may fly much like passengers as well.

The Office of Management and Budget has advised that there is no objection to transmittal of this legislative proposal from the standpoint of the Administration's program.

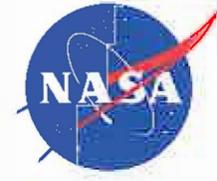
Sincerely,

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Charles F. Bolden, Jr.  
Administrator

Enclosure

National Aeronautics and Space Administration  
Office of the Administrator  
Washington, DC 20546-0001



November 26, 2013

The Honorable Lamar S. Smith  
Chairman  
Committee on Science, Space, and Technology  
U.S. House of Representatives  
Washington, DC 20515

Dear Mr. Chairman:

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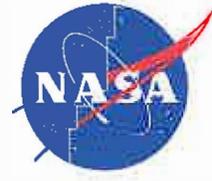
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Charles F. Bolden, Jr.  
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Washington, DC 20546-0001



November 26, 2013

The Honorable John D. Rockefeller, IV  
Chairman  
Committee on Commerce, Science,  
and Transportation  
United States Senate  
Washington, DC 20510

Dear Mr. Chairman:

The National Aeronautics and Space Administration (NASA) submits the enclosed proposed amendment to the Commercial Space Launch Act (CSLA), as amended, for Congress' consideration. The requirement for this legislative proposal emerged after the Agency's submission of other legislative proposals earlier this year, as NASA and the Federal Aviation Administration (FAA) attorneys began to discuss issues related to potential contracts for use of commercial providers for transportation of astronauts to the International Space Station (ISS).

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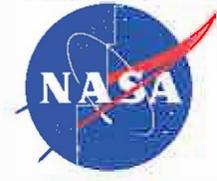
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Charles F. Bolden, Jr.  
Administrator

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Washington, DC 20546-0001



November 26, 2013

The Honorable John Thune  
Ranking Member  
Committee on Commerce, Science,  
and Transportation  
United States Senate  
Washington, DC 20510

Dear Senator Thune:

The National Aeronautics and Space Administration (NASA) submits the enclosed proposed amendment to the Commercial Space Launch Act (CSLA), as amended, for Congress' consideration. The requirement for this legislative proposal emerged after the Agency's submission of other legislative proposals earlier this year, as NASA and the Federal Aviation Administration (FAA) attorneys began to discuss issues related to potential contracts for use of commercial providers for transportation of astronauts to the International Space Station (ISS).

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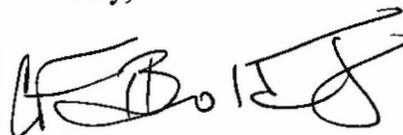
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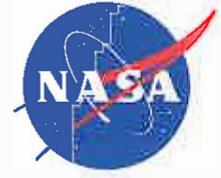
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Charles F. Bolden, Jr.  
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National Aeronautics and Space Administration  
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November 26, 2013

The Honorable John A. Boehner  
Speaker of the House of Representatives  
Washington, DC 20515

Dear Mr. Speaker:

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November 26, 2013

The Honorable Joseph Biden, Jr.  
President of the Senate  
Washington, DC 20501

Dear Mr. President:

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**STATUTORY LANGUAGE:**

**ADD NEW DEFINITION** in alphabetical order as 51 USC § 50902(4) and renumber subsequent sections accordingly:

"Government Astronaut" means any individual who:

(a) is an employee of:

(i) the United States Government, including the United States Armed Forces,  
or

(ii) a foreign government that is subject to a 1998 Intergovernmental Agreement Among the Government of Canada, Governments of Member States of the European Space Agency, the Government of Japan, the Government of the Russian Federation, and the Government of the United States of America Concerning Cooperation on the Civil International Space Station; and

(b) performs activities in the course of his or her employment directly relating to the launch, reentry, or other operation of or in a launch vehicle or reentry vehicle that carries human beings, or does not perform such activities but is carried within a launch or reentry vehicle in the course of government employment.

**AMEND** 51 USC § 50902(17) to add "or a Government Astronaut," between "individual, who is not Crew" and "carried within a launch vehicle or reentry vehicle"

**SECTIONAL ANALYSIS:**

NASA and the FAA share a common goal to encourage commercial human spaceflight. Since the completion of the Space Shuttle program, NASA and the FAA have been partnering to ensure a smooth transition from a government-developed capability for crewed launch services to a commercially-developed capability procured by NASA and licensed by the FAA. Working together, NASA and the FAA have identified ambiguities in the Commercial Space Launch Act (CSLA) that may hinder this goal. Based on the legislative history of the CSLA, the ambiguities likely are due to no one envisioning a future where NASA would fly astronauts on commercial vehicles to the International Space Station (ISS) because in 2004, when the CSLA was enacted, NASA had its own government vehicle for human spaceflight. The Space Shuttle program was going strong. Now the Space Shuttle program has finished its mission, and NASA intends to fly astronauts on commercial vehicles. NASA plans to award a contract in summer 2014 to enable launches by 2017. In support of this timeline, companies are already developing these commercial vehicles, including operational plans and procedures that require certainty as to the roles and responsibilities of both the Government astronauts and the companies' own vehicle operators. Amendments to the

CSLA are necessary as soon as possible to facilitate ongoing commercial development and timely, efficient FAA licensing of these flights.

The proposed amendments would: [1] add a new category of persons, called “Government Astronauts” who may be carried on launch and reentry vehicles or perform activities relating to the launch, reentry or operation of a launch or reentry vehicle, including remote operation, and, [2] exclude “Government Astronauts” from the definition of “Space Flight Participant.”

The new category is required because, as read to apply to astronauts on commercially licensed vehicles, there are several inconsistencies in the law and its application is unclear. The existing statute does not address Government employees in this role. For example, if a Government Astronaut operates a commercial vehicle under contract to NASA and licensed by the FAA, how would that astronaut be treated under the CSLA? The individual couldn't be Crew, since Crew is defined as an employee of the licensee, and astronauts are employees of NASA, the Department of Defense or international government agencies. Crew is also defined as an individual “who performs activities in the course of that employment directly relating to the launch, reentry, or other operation of or in a launch vehicle or reentry vehicle that carries human beings.” Crew can therefore operate a launch vehicle, but can Government astronauts perform operational tasks if they do not fit the definition of Crew? Keep in mind that the astronauts may be the only personnel on board the launch or reentry vehicle. Government Astronauts could fit the definition of Space Flight Participants; however, Space Flight Participants are defined as not being Crew. NASA astronauts would need to be able to perform operational tasks on a commercial vehicle licensed by the FAA regardless of how they are defined by statute. The new definition is required to clarify that government employees (employees of the United States and specified non-United States governments) may carry out crew responsibilities on these licensed launch or reentry vehicles. More specifically, the new category would clarify the law as to Government Astronauts, preserving their ability to conduct operations either onboard or remotely, or to be carried aboard the launch and reentry vehicles without performing any operational functions, depending on the requirements in NASA's contract with its launch provider.

The new category is required, moreover, to preserve astronauts' right to collect workers compensation in the event of injury on the job. The CSLA, section 50914 requires the Crew or a Space Flight Participant to waive claims against the U.S. Government and assume responsibility for bodily injury, death or property damage sustained. (See also 14 CFR part 440, appendices D and E). This provision will make clear that a U.S. government employee would retain the ability to make a claim for workers compensation, or in the case of military personnel, Veterans compensation. It is not clear what rights a government employee would have to make a claim for injury or death if he/she signed the required FAA waiver.

Foreign astronauts who are part of the ISS program, moreover, warrant this protection (that of an individual to make claims against the U.S. Government for injury or death)

because NASA is required to provide launch and return transportation services to the ISS under the 1998 Intergovernmental Agreement (IGA), and the IGA cross-waiver excludes claims of individuals from its scope. Moreover, flight of astronauts on commercial vehicles to the ISS was specifically envisioned at that time. The IGA Article 16 liability terms preclude claims between the parties, in this case the Partner States, but leave intact the right of individuals to sue for death or injury. The FAA waiver requirements appear to reverse the rights of foreign astronauts, all of whom, with U.S. astronauts, are part of an integrated ISS Crew who have thus far been treated on par with each other consistent with the objective and spirit of the IGA's "genuine partnership." (Article 1).

The new category would also correct a problematic regulatory constraint. In implementing section 50914's requirement that Crew and Space Flight Participants waive claims against the U.S. Government, FAA regulations require any Crew or Space Flight Participant to indemnify and hold harmless the U.S. and related entities for liability, loss or damage arising out of claims for bodily injury, death, or property damages sustained by him or her. (See, 14 CFR Part 440 Appendices D and E, section 5). In the space tourism context in which this was promulgated, Congress and the FAA meant to ensure that an occupant of a launch or reentry vehicle waived claims against the U.S. Government. If a Government astronaut signs the FAA waiver, the requirement that the astronaut indemnify and hold the U.S. Government harmless will result in an employee indemnifying the U.S. Government for activities performed in the course of his or her official duties.

A legislative solution, moreover, would remove any inconsistencies between the FAA's requirements for Space Flight Participants and NASA's existing standards for training and human rating requirements for its astronauts, all of which are more rigorous than the FAA's requirements. There are also prohibitions on use of weapons in FAA's requirements which restrict Space Flight Participants from carrying safety tools, such as knives.

For all the reasons, above, a legislative solution is requested to facilitate the efficient and complementary roles of NASA and the FAA to enable commercial human spaceflight with NASA ensuring its own crew safety and the FAA preserving public safety.