

108TH CONGRESS  
2D SESSION

# S. 2772

To promote the development of the emerging commercial human space flight industry, to extend the liability indemnification regime for the commercial space transportation industry, to authorize appropriations for the Office of the Associate Administrator for Commercial Space Transportation, and for other purposes.

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## IN THE SENATE OF THE UNITED STATES

JULY 22, 2004

Mr. INHOFE 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 promote the development of the emerging commercial human space flight industry, to extend the liability indemnification regime for the commercial space transportation industry, to authorize appropriations for the Office of the Associate Administrator for Commercial Space Transportation, and for other purposes.

1       *Be it enacted by the Senate and House of Representa-*  
2       *tives of the United States of America in Congress assembled,*

3       **SECTION 1. SHORT TITLE.**

4       This Act may be cited as the “Space Commercial  
5 Human Ascent Serving Expeditions Act” or the “Space  
6 CHASE Act”.

1 **SEC. 2. FINDINGS.**

2 The Congress finds that—

3 (1) the goal of opening space to the American  
4 people and their private commercial, scientific, and  
5 cultural enterprises should guide Federal space in-  
6 vestments, policies, and regulations;

7 (2) private industry has begun to develop com-  
8 mercial launch vehicles capable of carrying human  
9 beings into space, and greater private investment in  
10 these efforts will stimulate the Nation’s commercial  
11 space transportation industry as a whole;

12 (3) space transportation is inherently risky;

13 (4) a critical area of responsibility for the Of-  
14 fice of the Associate Administrator for Commercial  
15 Space Transportation is to regulate the emerging  
16 commercial human space flight industry; and

17 (5) the public interest is served by creating a  
18 clear legal and regulatory regime for commercial  
19 human space flight.

20 **SEC. 3. AMENDMENTS.**

21 (a) FINDINGS AND PURPOSES.—Section 70101 of  
22 title 49, United States Code, is amended—

23 (1) in subsection (a)(3), by inserting “human  
24 space flight,” after “microgravity research,”; and

25 (2) in subsection (a)(4)—

26 (A) by striking “satellite”; and

1 (B) by striking “services now available  
2 from” and inserting “capabilities of”.

3 (b) DEFINITIONS.—Section 70102 of title 49, United  
4 States Code, is amended—

5 (1) by redesignating paragraphs (2) through  
6 (17) as paragraphs (3), (4), (5), (6), (7), (8), (9),  
7 (10), (12), (13), (14), (15), (16), (18), (21), and  
8 (22), respectively;

9 (2) by inserting after paragraph (1) the fol-  
10 lowing new paragraph:

11 “(2) ‘crew’ means any employee of a licensee or  
12 transferee, or of a contractor or subcontractor of a  
13 licensee or transferee, who performs activities in the  
14 course of that employment directly relating to the  
15 launch, reentry, or other operation of or in a launch  
16 vehicle or reentry vehicle that carries human  
17 beings.”;

18 (3) in paragraph (4), as redesignated by para-  
19 graph (1) of this subsection, by inserting “, crew, or  
20 space flight participant” after “any payload”;

21 (4) in paragraph (6)(A), as redesignated by  
22 paragraph (1) of this subsection, by striking “and  
23 payload” and inserting “, payload, crew (including  
24 crew training), or space flight participant”;

1           (5) in paragraph (8)(A), as redesignated by  
2           paragraph (1) of this subsection, by inserting “or  
3           human beings” after “place a payload”;

4           (6) by inserting after paragraph (10), as rededesignated by paragraph (1) of this subsection, the following new paragraph:

7           “(11) ‘permit’ means an experimental permit  
8           issued under section 70105.”;

9           (7) in paragraph (13), as redesignated by paragraph (1) of this subsection, by inserting “crew, or  
10          space flight participants,” after “and its payload,”;

12          (8) in paragraph (14)(A), as redesignated by paragraph (1) of this subsection, by striking “and its payload” inserting “and payload, crew (including crew training), or space flight participant”;

16          (9) by inserting after paragraph (16), as redesignated by paragraph (1) of this subsection, the following new paragraph:

19          “(17) ‘space flight participant’ means an individual, who is not crew, carried within a launch vehicle or reentry vehicle.”;

22          (10) by inserting after paragraph (18), as redesignated by paragraph (1) of this subsection, the following new paragraphs:

1           “(19) ‘suborbital rocket’ means a vehicle, rock-  
 2           et-propelled in whole or in part, intended for flight  
 3           on a suborbital trajectory whose thrust is greater  
 4           than its lift for the majority of the rocket-powered  
 5           portion of its flight.

6           “(20) ‘suborbital trajectory’ means the inten-  
 7           tional flight path of a launch vehicle, reentry vehicle,  
 8           or any portion thereof, whose vacuum instantaneous  
 9           impact point does not leave the surface of the  
 10          Earth.”; and

11          (11) in paragraph (21), as redesignated by  
 12          paragraph (1) of this subsection—

13                (A) by striking “or” at the end of subpara-  
 14                graph (C);

15                (B) by striking the period at the end of  
 16                subparagraph (D) and inserting “; or”; and

17                (C) by adding at the end the following new  
 18                subparagraph:

19                       “(E) crew or space flight participants.”.

20          (c) COMMERCIAL HUMAN SPACE FLIGHT.—(1) Sec-  
 21          tion 70103(a) of title 49, United States Code, is amend-  
 22          ed—

23                (A) by inserting “, through the Associate Ad-  
 24                ministrators for Commercial Space Transportation,”  
 25                after “Secretary of Transportation”; and

1 (B) by adding at the end the following new sen-  
2 tence: “The Secretary of Transportation shall ensure  
3 that the Associate Administrator for Commercial  
4 Space Transportation has sufficient personnel from  
5 within the Federal Aviation Administration to carry  
6 out this chapter.”.

7 (2) Section 70103(b)(1) of title 49, United States  
8 Code, is amended by inserting “, including those involving  
9 space flight participants” after “private sector”.

10 (3) Section 70104(a) of title 49, United States Code,  
11 is amended—

12 (A) by striking “LICENSE REQUIREMENT.—A  
13 license issued or transferred under this chapter” and  
14 inserting “REQUIREMENT.—A license issued or  
15 transferred under this chapter, or a permit,”; and

16 (B) by inserting after paragraph (4) the fol-  
17 lowing:

18 “Notwithstanding this subsection, a permit shall not au-  
19 thorize a person to operate a launch site or reentry site.”.

20 (4) Section 70104(b) of title 49, United States Code,  
21 is amended by inserting “or permit” after “holder of a  
22 license”.

23 (5) Section 70104 of title 49, United States Code,  
24 is amended by adding at the end the following:

1       “(d) LIMITATION ON CONDITIONS.—(1) The Sec-  
 2       retary of Transportation shall not make it a condition or  
 3       requirement for a person who receives a license or experi-  
 4       mental permit under this chapter to obtain any other li-  
 5       cense, permit, certificate, or other legal instrument from  
 6       the Secretary for the conduct of the activity, including  
 7       flight and return, for which the license or permit was  
 8       issued.

9       “(2) The Secretary of Transportation shall not re-  
 10      quire any additional license, permit, certificate, or other  
 11      legal instrument be obtained from the Department of  
 12      Transportation for any activity, including flight and re-  
 13      turn, for which a license or experimental permit has been  
 14      issued under this chapter.”.

15      (6) The section heading of section 70105 of title 49,  
 16      United States Code, is amended by striking “**License**  
 17      **applications**” and inserting “**Applications**”, and  
 18      the item relating to that section in the table of sections  
 19      for chapter 701 of title 49, United States Code, is amend-  
 20      ed accordingly.

21      (7) Section 70105(a) of title 49, United States Code,  
 22      is amended—

23              (A) by striking “APPLICATIONS.—” and insert-  
 24      ing “LICENSES.—”;

1 (B) in paragraph (1), by striking “subsection  
2 (b)(2)(D)” both places it appears and inserting  
3 “subsection (c)(2)(D)”; and

4 (C) in paragraph (2), by inserting “, including  
5 crews,” after “or personnel”.

6 (8) Section 70105 of title 49, United States Code,  
7 is amended by redesignating subsections (b) and (c) as  
8 subsections (c) and (d), respectively, and by inserting after  
9 subsection (a) the following new subsection:

10 “(b) EXPERIMENTAL.—(1) A person may apply to  
11 the Secretary of Transportation for an experimental per-  
12 mit under this subsection in the form and manner the Sec-  
13 retary prescribes. Consistent with the public health and  
14 safety, safety of property, and national security and for-  
15 eign policy interests of the United States, the Secretary,  
16 not later than 90 days after receiving an application pur-  
17 suant to this subsection, shall issue a permit if the Sec-  
18 retary decides in writing that the applicant complies, and  
19 will continue to comply, with this chapter and regulations  
20 prescribed under this chapter. The Secretary shall inform  
21 the applicant of any pending issue and action required to  
22 resolve the issue if the Secretary has not made a decision  
23 not later than 60 days after receiving an application. The  
24 Secretary shall transmit to the Committee on Science of  
25 the House of Representatives and Committee on Com-

1 merce, Science, and Transportation of the Senate a writ-  
2 ten notice not later than 15 days after any occurrence  
3 when a permit is not issued within the deadline established  
4 by this subsection.

5 “(2) In carrying out paragraph (1), the Secretary  
6 may establish procedures for safety approvals of launch  
7 vehicles, reentry vehicles, safety systems, processes, serv-  
8 ices, or personnel, including crews, that may be used in  
9 conducting commercial space launch or reentry activities  
10 pursuant to a permit.

11 “(3) In order to encourage the development of a com-  
12 mercial space flight industry, the Secretary, to the great-  
13 est extent practicable, shall when issuing permits use the  
14 authority granted under subsection (c)(2)(C).

15 “(4) The Secretary may issue a permit only for reus-  
16 able suborbital rockets that will be launched or reentered  
17 solely for—

18 “(A) research and development to test new de-  
19 sign concepts, new equipment, or new operating  
20 techniques;

21 “(B) showing compliance with requirements as  
22 part of the process for obtaining a license under this  
23 chapter; or

1           “(C) crew training prior to obtaining a license  
2           for a launch or reentry using the design of the rock-  
3           et for which the permit would be issued.

4           “(5) Permits issued under this subsection shall—

5           “(A) authorize an unlimited number of launches  
6           and reentries for a particular suborbital rocket de-  
7           sign for the uses described in paragraph (4); and

8           “(B) specify the modifications that may be  
9           made to the suborbital rocket without changing the  
10          design to an extent that would invalidate the permit.

11          “(6) Permits shall not be transferable.

12          “(7) A permit may not be issued for, and a permit  
13          that has already been issued shall cease to be valid for,  
14          a particular design for a reusable suborbital rocket after  
15          a license has been issued for the launch or reentry of a  
16          rocket of that design.

17          “(8) No person may operate a reusable suborbital  
18          rocket under a permit for carrying any property or human  
19          being for compensation or hire.

20          “(9) For the purposes of sections 70106, 70107,  
21          70108, 70109, 70110, 70112, 70115, 70116, 70117, and  
22          70121 of this chapter—

23                 “(A) a permit shall be considered a license;

24                 “(B) the holder of a permit shall be considered  
25          a licensee;

1           “(C) a vehicle operating under a permit shall be  
2           considered to be licensed; and

3           “(D) the issuance of a permit shall be consid-  
4           ered licensing.

5 This paragraph shall not be construed to allow the trans-  
6 fer of a permit.”.

7           (9) Section 70105(c)(1) of title 49, United States  
8 Code, as redesignated by paragraph (7) of this subsection,  
9 is amended by inserting “or permit” after “for a license”.

10          (10) Section 70105(c)(2)(B) of title 49, United  
11 States Code, as redesignated by paragraph (7) of this sub-  
12 section, is amended by striking “an additional require-  
13 ment” and inserting “any additional requirement”.

14          (11) Section 70105(c)(2)(C) of title 49, United  
15 States Code, as redesignated by paragraph (7) of this sub-  
16 section, is amended by inserting “or permit” after “for  
17 a license”.

18          (12) Section 70105(c)(2)(D) of title 49, United  
19 States Code, as redesignated by paragraph (7) of this sub-  
20 section, is amended by inserting “or permit” after “for  
21 a license”.

22          (13) Section 70105(c)(3) of title 49, United States  
23 Code, as redesignated by paragraph (7) of this subsection,  
24 is amended by adding at the end the following: “Nothing  
25 in this paragraph shall be construed to allow the launch

1 or reentry of a launch vehicle or a reentry vehicle without  
 2 a license or permit if a human being will be on board.”.

3 (14) Section 70105(c) of title 49, United States  
 4 Code, as redesignated by paragraph (7) of this subsection,  
 5 is amended by adding at the end the following new para-  
 6 graphs:

7 “(4) The holder of a license or a permit under this  
 8 chapter may launch or reenter crew only if—

9 “(A) the crew has received training and has  
 10 satisfied medical or other standards specified in the  
 11 license or permit in accordance with regulations pro-  
 12 mulgated by the Secretary; and

13 “(B) the holder of the license or permit and  
 14 crew have complied with all requirements of the laws  
 15 of the United States that apply to crew.

16 “(5) The holder of a license or a permit under this  
 17 chapter may launch or reenter a space flight participant  
 18 only if—

19 “(A) in accordance with regulations promul-  
 20 gated by the Secretary, the holder of the license or  
 21 permit has informed the space flight participant in  
 22 writing about the risks of the launch or reentry, in-  
 23 cluding the safety record of the launch or reentry ve-  
 24 hicle type, and the space flight participant has pro-

1        vided written informed consent to participation in  
 2        the launch or reentry; and

3            “(B) the holder of the license or permit and  
 4        space flight participant have complied with all re-  
 5        quirements of the laws of the United States related  
 6        to launching or reentering a space flight partici-  
 7        pant.”.

8        (15) Section 70105(d) of title 49, United States  
 9        Code, as redesignated by paragraph (7) of this subsection,  
 10       is amended by inserting “or permit” after “of a license”.

11       (16) Section 70106(a) of title 49, United States  
 12       Code, is amended—

13            (A) by inserting “at a site used for crew train-  
 14        ing,” after “assemble a launch vehicle or reentry ve-  
 15        hicle,”; and

16            (B) by striking “section 70104(c)” and insert-  
 17        ing “sections 70104(c) and 70105(c)(4)”.

18        (17) Section 70110(a)(1) of title 49, United States  
 19        Code, is amended by striking “70105(a)” and inserting  
 20        “70105”.

21        (18) Section 70112(b)(1) of title 49, United States  
 22        Code, is amended—

23            (A) by inserting “space flight participants,”  
 24        after “its contractors, subcontractors,”;

1 (B) by inserting “or by space flight partici-  
2 pants,” after “its own employees”; and

3 (C) by adding at the end the following: “The  
4 requirement for space flight participants to make a  
5 reciprocal waiver of claims with the licensee or  
6 transferee shall expire 3 years after the first licensed  
7 launch of a launch vehicle carrying a space flight  
8 participant.”.

9 (19) Section 70112(b)(2) of title 49, United States  
10 Code, is amended—

11 (A) by inserting “crew, space flight partici-  
12 pants,” after “transferee, contractors, subcontractors,”; and

13 (B) by inserting “or by space flight partici-  
14 pants,” after “its own employees”.

15 (20) Section 70113(a)(1) of title 49, United States  
16 Code, is amended by inserting “but not against a space  
17 flight participant,” after “subcontractor of a customer,”.

18 (21) Section 70113(f) of title 49, United States Code,  
19 is amended by striking “December 31, 2004.” and insert-  
20 ing “December 31, 2007. This section does not apply to  
21 permits.”.

22 (22) Section 70115(b)(1)(D)(i) of title 49, United  
23 States Code, is amended by inserting “crew training site,”  
24 after “site of a launch vehicle or reentry vehicle,”.

1       (23) Section 70119 of title 49, United States Code,  
2 is amended by striking paragraphs (1) and (2) and insert-  
3 ing the following:

4               “(1) \$11,776,000 for fiscal year 2005;

5               “(2) \$11,776,000 for fiscal year 2006; and

6               “(3) \$11,776,000 for fiscal year 2007.”.

7       (24) Section 70120 of title 49, United States Code,  
8 is amended by adding at the end the following new sub-  
9 sections:

10       “(c) AMENDMENTS.—Not later than 12 months after  
11 the date of enactment of the Commercial Space Launch  
12 Amendments Act of 2004, the Secretary shall publish pro-  
13 posed regulations to carry out that Act, including regula-  
14 tions relating to crew, space flight participants, and per-  
15 mits for launch or reentry of reusable suborbital rockets.  
16 Not later than 18 months after such date of enactment,  
17 the Secretary shall issue final regulations.

18       “(d) EFFECTIVE.—(1) Licenses for the launch or re-  
19 entry of launch vehicles or reentry vehicles with human  
20 beings on board and permits may be issued by the Sec-  
21 retary prior to the issuance of the regulations described  
22 in subsection (c).

23       “(2) As soon as practicable after the date of enact-  
24 ment of the Commercial Space Launch Amendments Act  
25 of 2004, the Secretary shall issue guidelines or advisory

1 circulars to guide the implementation of that Act until  
 2 regulations are issued.

3 “(3) Notwithstanding paragraphs (1) and (2), no li-  
 4 censes for the launch or reentry of launch vehicles or re-  
 5 entry vehicles with human beings on board or permits may  
 6 be issued starting three years after the date of enactment  
 7 of the Commercial Space Launch Amendments Act of  
 8 2004 unless the final regulations described in subsection  
 9 (c) have been issued.”.

10 **SEC. 4. STUDY ON THE GRADUAL ELIMINATION OF COM-**  
 11 **MERCIAL SPACE TRANSPORTATION LIABIL-**  
 12 **ITY RISK SHARING REGIME.**

13 Not later than 60 days after the date of enactment  
 14 of this Act, the Secretary of Transportation shall enter  
 15 into an appropriate arrangement with the National Acad-  
 16 emy of Public Administration to conduct a study of how  
 17 best to gradually eliminate the liability risk sharing regime  
 18 in the United States for commercial space transportation  
 19 under section 70113 of title 49, United States Code. The  
 20 study shall assess methods by which the liability risk shar-  
 21 ing regime could be eliminated by 2008 or as soon as pos-  
 22 sible thereafter and the impact those methods would be  
 23 likely to have on the commercial space transportation in-  
 24 dustry. The methods examined shall include incremental  
 25 approaches.

1 **SEC. 5. TECHNICAL AMENDMENT.**

2       Section 102(c) of the Commercial Space Act of 1998  
3 is repealed.

○