

## Union Calendar No. 247

108<sup>TH</sup> CONGRESS  
2<sup>D</sup> SESSION

# H. R. 3752

[Report No. 108-429]

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 HOUSE OF REPRESENTATIVES

FEBRUARY 3, 2004

Mr. ROHRABACHER (for himself, Mr. BOEHLERT, Mr. HALL, Mr. GORDON, and Mr. LAMPSON) introduced the following bill; which was referred to the Committee on Science

MARCH 1, 2004

Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

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## A BILL

To promote the development of the emerging commercial human spaceflight 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 “Commercial Space  
5 Launch Amendments Act of 2004”.

6 **SEC. 2. FINDINGS.**

7        The Congress finds that—

8            (1) the goal of opening space to the American  
9            people and their private commercial, scientific, and  
10            cultural enterprises should guide Federal space in-  
11            vestments, policies, and regulations;

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

17            (3) space transportation is inherently risky;

18            (4) a critical area of responsibility for the Of-  
19            fice of the Associate Administrator for Commercial  
20            Space Transportation is to regulate the emerging  
21            commercial human space flight industry; and

22            (5) the public interest is served by creating a  
23            clear legal and regulatory regime for commercial  
24            human space flight.

1 **SEC. 3. AMENDMENTS.**

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

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

6 (2) in subsection (a)(4)—

7 (A) by striking “satellite”; and

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

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

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

16 (2) by inserting after paragraph (1) the fol-  
17 lowing new paragraph:

18 “(2) ‘crew’ means any employee of a licensee or  
19 transferee, or of a contractor or subcontractor of a  
20 licensee or transferee, who performs activities in the  
21 course of that employment directly relating to the  
22 launch, reentry, or other operation of or in a launch  
23 vehicle or reentry vehicle that carries human  
24 beings.”;

25 (3) in paragraph (4), as so redesignated by  
26 paragraph (1) of this subsection, by inserting “,

1 crew, or space flight participant” after “any pay-  
2 load”;

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

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

10 (6) by inserting after paragraph (10), as so re-  
11 designated by paragraph (1) of this subsection, the  
12 following new paragraph:

13 “(11) ‘permit’ means an experimental permit  
14 issued under section 70105.”.

15 (7) in paragraph (13), as so redesignated by  
16 paragraph (1) of this subsection, by inserting “crew,  
17 or space flight participants,” after “and its pay-  
18 load,”;

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

23 (9) by inserting after paragraph (16), as so re-  
24 designated by paragraph (1) of this subsection, the  
25 following new paragraph:

1           “(17) ‘space flight participant’ means an indi-  
2           vidual, who is not crew, carried within a launch vehi-  
3           cle or reentry vehicle.”;

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

7           “(19) ‘suborbital rocket’ means a rocket-pro-  
8           pelled vehicle intended for flight on a suborbital tra-  
9           jectory whose thrust is greater than its lift for the  
10          majority of the powered portion of its flight.

11          “(20) ‘suborbital trajectory’ means the inten-  
12          tional flight path of a launch vehicle, reentry vehicle,  
13          or any portion thereof, whose vacuum instantaneous  
14          impact point does not leave the surface of the  
15          Earth.”; and

16          (11) in paragraph (21), as so redesignated by  
17          paragraph (1) of this subsection—

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

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

22                 (C) by adding at the end the following new  
23                 subparagraph:

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

1           (c) COMMERCIAL HUMAN SPACE FLIGHT.—(1) Sec-  
2 tion 70103(a) of title 49, United States Code, is amended  
3 by inserting “, through the Associate Administrator for  
4 Commercial Space Transportation,” after “Secretary of  
5 Transportation”.

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

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

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

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

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

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

22           (5) The section heading of section 70105 of title 49,  
23 United States Code, is amended by striking “LICENSE AP-  
24 PPLICATIONS” and inserting “APPLICATIONS”, and the  
25 item relating to that section in the table of sections for

1 chapter 701 of title 49, United States Code, is amended  
2 accordingly.

3 (6) Section 70105(a) of title 49, United States Code,  
4 is amended—

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

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

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

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

16 “(b) EXPERIMENTAL PERMITS.—(1) A person may  
17 apply to the Secretary of Transportation for an experi-  
18 mental permit under this subsection in the form and man-  
19 ner the Secretary prescribes. Consistent with the public  
20 health and safety, safety of property, and national security  
21 and foreign policy interests of the United States, the Sec-  
22 retary, not later than 90 days after receiving an applica-  
23 tion pursuant to this subsection, shall issue a permit if  
24 the Secretary decides in writing that the applicant com-  
25 plies, and will continue to comply, with this chapter and

1 regulations prescribed under this chapter. The Secretary  
2 shall inform the applicant of any pending issue and action  
3 required to resolve the issue if the Secretary has not made  
4 a decision not later than 60 days after receiving an appli-  
5 cation. The Secretary shall transmit to the Committee on  
6 Science of the House of Representatives and Committee  
7 on Commerce, Science, and Transportation of the Senate  
8 a written notice not later than 15 days after any occur-  
9 rence when a permit is not issued within the deadline es-  
10 tablished by this subsection.

11       “(2) In carrying out paragraph (1), the Secretary  
12 may establish procedures for safety approvals of launch  
13 vehicles, reentry vehicles, safety systems, processes, serv-  
14 ices, or personnel, including crews, that may be used in  
15 conducting commercial space launch or reentry activities  
16 pursuant to a permit.

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

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

1           “(A) research and development to test new de-  
2           sign concepts, new equipment, or new operating  
3           techniques;

4           “(B) showing compliance with requirements as  
5           part of the process for obtaining a license under this  
6           chapter; or

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

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

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

14           “(B) specify the modifications that may be  
15           made to the suborbital rocket without changing the  
16           design to an extent that would invalidate the permit.

17          “(6) Permits shall not be transferable.

18          “(7) A permit may not be issued for, and a permit  
19          that has already been issued shall cease to be valid for,  
20          a particular design for a reusable suborbital rocket after  
21          a license has been issued for the launch or reentry of a  
22          rocket of that design.

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

1       “(9) For the purposes of sections 70106, 70107,  
2 70108, 70109, 70110, 70112, 70115, 70116, 70117, and  
3 70121 of this chapter—

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

5               “(B) the holder of a permit shall be considered  
6 a licensee;

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

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

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

13       (8) Section 70105(c)(1) of title 49, United States  
14 Code, as so redesignated by paragraph (7) of this sub-  
15 section, is amended by inserting “or permit” after “for  
16 a license”.

17       (9) Section 70105(c)(2)(B) of title 49, United States  
18 Code, as so redesignated by paragraph (7) of this sub-  
19 section, is amended by striking “an additional require-  
20 ment” and inserting “any additional requirement”.

21       (10) Section 70105(c)(2)(C) of title 49, United  
22 States Code, as so redesignated by paragraph (7) of this  
23 subsection, is amended by inserting “or permit” after “for  
24 a license”.

1       (11) Section 70105(c)(2)(D) of title 49, United  
2 States Code, as so redesignated by paragraph (7) of this  
3 subsection, is amended by inserting “or permit” after “for  
4 a license”.

5       (12) Section 70105(c)(3) of title 49, United States  
6 Code, as so redesignated by paragraph (7) of this sub-  
7 section, is amended—

8           (A) by striking “, including the requirement to  
9 obtain a license,”; and

10          (B) by adding at the end the following: “Noth-  
11 ing in this paragraph shall be construed to allow the  
12 launch or reentry of a launch vehicle or a reentry ve-  
13 hicle without a license or permit if a human being  
14 will be on board.”.

15       (13) Section 70105(e) of title 49, United States  
16 Code, as so redesignated by paragraph (7) of this sub-  
17 section, is amended by adding at the end the following  
18 new paragraphs:

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

21           “(A) the crew has received training and has  
22 satisfied medical or other standards specified in the  
23 license or permit in accordance with regulations pro-  
24 mulgated by the Secretary; and

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

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

7           “(A) in accordance with regulations promul-  
8 gated by the Secretary, the holder of the license or  
9 permit has informed the space flight participant in  
10 writing about the risks of the launch or reentry, in-  
11 cluding the safety record of the launch or reentry ve-  
12 hicle type, and the space flight participant has pro-  
13 vided written informed consent to participation in  
14 the launch or reentry; and

15           “(B) the holder of the license or permit and  
16 space flight participant have complied with all re-  
17 quirements of the laws of the United States related  
18 to launching or reentering a space flight partici-  
19 pant.”.

20           (14) Section 70105(d) of title 49, United States  
21 Code, as so redesignated by paragraph (7) of this sub-  
22 section, is amended by inserting “or permit” after “of a  
23 license”.

24           (15) Section 70106(a) of title 49, United States  
25 Code, is amended—

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

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

6 (16) Section 70110(a)(1) of title 49, United States  
7 Code, is amended by striking “70105(a)” and inserting  
8 “70105”.

9 (17) Section 70112(b)(1) of title 49, United States  
10 Code, is amended—

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

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

15 (18) Section 70112(b)(2) of title 49, United States  
16 Code, is amended—

17 (A) by inserting “crew, space flight partici-  
18 pants,” after “transferee, contractors, subcontrac-  
19 tors,”; and

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

22 (19) Section 70113(a) of title 49, United States  
23 Code, is amended by inserting “, but not against a space  
24 flight participant,” after “subcontractor of a customer,”.

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

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

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

11                   “(1) such sums as may be necessary for fiscal  
12           year 2005;

13                   “(2) such sums as may be necessary for fiscal  
14           year 2006; and

15                   “(3) such sums as may be necessary for fiscal  
16           year 2007.”.

17           (23) Section 70120 of title 49, United States Code,  
18 is amended by adding at the end the following new sub-  
19 sections:

20           “(c) AMENDMENTS.—Not later than 12 months after  
21 the date of enactment of the Commercial Space Launch  
22 Amendments Act of 2004, the Secretary shall publish pro-  
23 posed regulations to carry out that Act, including regula-  
24 tions relating to crew, space flight participants, and per-  
25 mits for launch or reentry of reusable suborbital rockets.

1 Not later than 18 months after such date of enactment,  
2 the Secretary shall issue final regulations.

3 “(d) EFFECTIVE DATE.—(1) Licenses for the launch  
4 or reentry of launch vehicles or reentry vehicles with  
5 human beings on board and permits may be issued by the  
6 Secretary prior to the issuance of the regulations de-  
7 scribed in subsection (c).

8 “(2) As soon as practicable after the date of enact-  
9 ment of the Commercial Space Launch Amendments Act  
10 of 2004, the Secretary shall issue guidelines or advisory  
11 circulars to guide the implementation of that Act until  
12 regulations are issued.

13 “(3) Notwithstanding paragraphs (1) and (2), no li-  
14 censes for the launch or reentry of launch vehicles or re-  
15 entry vehicles with human beings on board or permits may  
16 be issued starting three years after the date of enactment  
17 of the Commercial Space Launch Amendments Act of  
18 2004 unless the final regulations described in subsection  
19 (c) have been issued.”.

20 **SEC. 4. STUDY ON THE GRADUAL ELIMINATION OF COM-**  
21 **MERCIAL SPACE TRANSPORTATION LIABIL-**  
22 **ITY RISK SHARING REGIME.**

23 Not later than 60 days after the date of enactment  
24 of this Act, the Secretary of Transportation shall enter  
25 into an appropriate arrangement with the National Acad-

1 emy of Public Administration to conduct a study of how  
2 best to gradually eliminate the liability risk sharing regime  
3 in the United States for commercial space transportation  
4 under section 70113 of title 49, United States Code. The  
5 study shall assess methods by which the liability risk shar-  
6 ing regime could be eliminated by 2008 or as soon as pos-  
7 sible thereafter and the impact those methods would be  
8 likely to have on the commercial space transportation in-  
9 dustry. The methods examined shall include incremental  
10 approaches.

11 **SEC. 5. TECHNICAL AMENDMENT.**

12 Section 102(c) of the Commercial Space Act of 1998  
13 is repealed.



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