

# Calendar No. 884

110TH CONGRESS  
2D SESSION

# S. 3270

[Report No. 110-422]

To reauthorize the National Aeronautics and Space Administration, and for other purposes.

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IN THE SENATE OF THE UNITED STATES

JULY 16, 2008

Mr. INOUE, from the Committee on Commerce, Science, and Transportation, reported the following original bill; which was read twice and placed on the calendar

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## A BILL

To reauthorize the National Aeronautics and Space Administration, and for other purposes.

**1 SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

2 (a) **SHORT TITLE.**—This Act may be cited as the  
3 “National Aeronautics and Space Administration Author-  
4 ization Act of 2008”.

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

- Sec. 1. Short title; table of contents.
- Sec. 2. Definitions.
- Sec. 3. Authorization of appropriations.

- Sec. 4. Reaffirmation of space policy.
- Sec. 5. Uninterrupted United States human spaceflight capability.
- Sec. 6. Space shuttle transition.
- Sec. 7. Aerospace skills retention and investment reutilization report.
- Sec. 8. Plan to support operations of the International Space Station beyond fiscal year 2015.
- Sec. 9. International Space Station National Laboratory.
- Sec. 10. International Space Station science mission.
- Sec. 11. Sense of Congress on use of Space Life Sciences Laboratory at Kennedy Space Center.
- Sec. 12. Science policy.
- Sec. 13. Aeronautics.
- Sec. 14. Development of enhanced-use lease policy.
- Sec. 15. Study on leasing practices of field centers.
- Sec. 16. Study and report on project assignment and work allocation of field centers.
- Sec. 17. Interagency study of commercial space range options.
- Sec. 18. Sense of Congress on reestablishment of National Space Council in Executive Office of the President.
- Sec. 19. Review of suborbital mission capabilities.
- Sec. 20. Initiation of discussions on development of framework for space traffic management.
- Sec. 21. Study on export control policies related to civil and commercial space activities.
- Sec. 22. Near-Earth objects.
- Sec. 23. Enhancement of educational role of National Aeronautics and Space Administration.
- Sec. 24. Establishment of Office of Program Analysis and Evaluation.
- Sec. 25. Methane inventory.
- Sec. 26. Reduction-in-force moratorium.
- Sec. 27. Limit on the use of term positions.
- Sec. 28. Protection of scientific credibility, integrity, and communication within the National Aeronautics and Space Administration.

1 **SEC. 2. DEFINITIONS.**

2 In this Act:

3 (1) **AGENCY.**—The term “Agency” means the  
4 National Aeronautics and Space Administration.

5 (2) **ADMINISTRATOR.**—The term “Adminis-  
6 trator” means the Administrator of the National  
7 Aeronautics and Space Administration.

8 (3) **APPROPRIATE CONGRESSIONAL COMMIT-**  
9 **TEES.**—The term “appropriate congressional com-  
10 mittees” means—

1 (A) the Committee on Commerce, Science,  
2 and Transportation of the Senate; and

3 (B) the Committee on Science and Tech-  
4 nology of the House of Representatives.

5 **SEC. 3. AUTHORIZATION OF APPROPRIATIONS.**

6 (a) **BASELINE AUTHORIZATION.**—There is author-  
7 ized to be appropriated to the National Aeronautics and  
8 Space Administration \$19,210,000,000 for fiscal year  
9 2009 as follows:

10 (1) For science, \$4,932,200,000, of which—

11 (A) \$1,518,000,000 shall be for earth  
12 science;

13 (B) \$1,483,000,000 shall be for planetary  
14 science;

15 (C) \$1,290,400,000 shall be for astro-  
16 physics; and

17 (D) \$640,800,000 shall be for heliophysics.

18 (2) For aeronautics, \$853,400,000.

19 (3) For exploration, \$3,886,000,000.

20 (4) For education, \$128,300,000.

21 (5) For space operations, \$6,074,700,000.

22 (6) For cross-agency support programs,  
23 \$3,299,900,000.

24 (7) For the Inspector General of the National  
25 Aeronautics and Space Administration, \$35,500,000.

1 (b) ADDITIONAL AUTHORIZATION TO ADDRESS  
2 HUMAN SPACE FLIGHT GAP.—

3 (1) IN GENERAL.—In addition to the sums au-  
4 thorized by subsection (a), there is authorized to be  
5 appropriated to accelerate the initial operational ca-  
6 pability of a United States owned human spacecraft  
7 capability, including the Orion Crew Exploration Ve-  
8 hicle, the Ares I Crew Launch Vehicle, or other com-  
9 bination of crew and launch vehicle from a United  
10 States launch provider, and associated ground sup-  
11 port systems, \$1,000,000,000 for fiscal year 2009.  
12 Funds authorized by this paragraph shall be ex-  
13 pended in a manner which ensures that there will be  
14 no delay in the development schedule of the Ares 1  
15 Crew Launch Vehicle and Orion Crew Exploration  
16 Vehicle, and no infringement on their primary mis-  
17 sion within the mission architecture defined to im-  
18 plement the Vision for Space Exploration.

19 (2) AVAILABILITY.—Amounts appropriated pur-  
20 suant to the authorization of appropriations under  
21 paragraph (1) shall remain available until expended.

22 **SEC. 4. REAFFIRMATION OF SPACE POLICY.**

23 Congress hereby affirms its support for—

24 (1) the broad goals of the space exploration poli-  
25 icy of the United States, including the eventual re-

1 turn to and exploration of the Moon and the impor-  
2 tant national imperative of independent access to  
3 space;

4 (2) the utilization of lunar exploration, includ-  
5 ing the development of habitation capabilities, life  
6 support, mobility systems, and in situ resource ex-  
7 traction, processing, and utilization for future ex-  
8 pansion beyond the lunar environment;

9 (3) activity related to Mars exploration, particu-  
10 larly for the development and testing of technologies  
11 and mission concepts needed for eventual consider-  
12 ation of optional mission architectures, pursuant to  
13 future authority to proceed with the consideration  
14 and implementation of such architectures; and

15 (4) international participation and cooperation,  
16 as well as commercial involvement in space explo-  
17 ration activities.

18 **SEC. 5. UNINTERRUPTED UNITED STATES HUMAN**  
19 **SPACEFLIGHT CAPABILITY.**

20 (a) ENHANCED REPORT ON SPACE SHUTTLE FOL-  
21 LOW-ON.—Section 501(c) of the National Aeronautics and  
22 Space Administration Authorization Act of 2005 (42  
23 U.S.C. 16761(c)) is amended by striking the matter before  
24 paragraph (1) and inserting the following: “Not later than  
25 90 days after the date of the enactment of the National

1 Aeronautics and Space Administration Authorization Act  
2 of 2008, the Administrator shall submit to the appropriate  
3 congressional committees a report on the lack of a United  
4 States human space flight system to replace the Space  
5 Shuttle Orbiter and the ability of the United States to up-  
6 hold the policy described in subsection (a), including a de-  
7 scription of—”.

8 (b) LIMITATION ON RETIREMENT OF SPACE SHUT-  
9 TLE ORBITER.—Except as provided in subsection (c), the  
10 Administrator may not retire the Space Shuttle Orbiter  
11 earlier than the later of—

12 (1) the date of completion of the mission mani-  
13 fest planned as of the date of the enactment of this  
14 Act (including any modification of such manifest  
15 pursuant to this Act or an amendment made by this  
16 Act or any subsequent Act); or

17 (2) September 30, 2010.

18 (c) REPORT ON RECERTIFICATION OF SPACE SHUT-  
19 TLE ORBITER.—

20 (1) IN GENERAL.—Not later than 180 days  
21 after the date of the enactment of this Act, the Ad-  
22 ministrator shall submit to the Committee on Com-  
23 merce, Science, and Transportation and the Com-  
24 mittee on Appropriations of the Senate and the  
25 Committee on Science and Technology and the Com-

1       mittee on Appropriations of the House of Represent-  
2       atives a report containing a detailed description of  
3       the steps, and associated costs and schedule for com-  
4       pleting those steps, necessary to recertify the contin-  
5       ued flight-worthiness of the Space Shuttle Orbiter  
6       and associated flight and launch systems to continue  
7       space shuttle flight operations from fiscal year 2011  
8       through fiscal year 2015.

9               (2) JUSTIFICATION.—The report required by  
10       paragraph (1) shall include justification for any  
11       steps identified in such report as necessary that are  
12       in addition to normal Space Shuttle Orbiter mainte-  
13       nance, upgrades, and flight readiness reviews.

14       (d) TERMINATION OR SUSPENSION OF ACTIVITIES  
15       THAT WOULD PRECLUDE CONTINUED FLIGHT OF SPACE  
16       SHUTTLE.—

17               (1) IN GENERAL.—The Administrator shall ter-  
18       minate or suspend any activity of the Agency that,  
19       if continued, would preclude the continued safe and  
20       effective flight of the Space Shuttle Orbiter after fis-  
21       cal year 2010.

22               (2) AUTHORIZATION OF APPROPRIATIONS.—

23                       (A) IN GENERAL.—There is authorized to  
24       be appropriated to the Administrator such sums

1 as may be necessary to carry out the require-  
2 ments of paragraph (1).

3 (B) SUPPLEMENT NOT SUPPLANT.—The  
4 amount authorized to be appropriated by sub-  
5 paragraph (A) for the purpose described in that  
6 subparagraph is in addition to amounts author-  
7 ized by section 3(a)(5).

8 (C) NO DELAY NOR INFRINGEMENT.—Ac-  
9 tions required to be taken by paragraph (d)(1)  
10 of this section shall be taken in a manner which  
11 ensures that there will be no delay in the devel-  
12 opment schedule of the Ares 1 Crew Launch  
13 Vehicle and Orion Crew Exploration Vehicle,  
14 and no infringement on their primary mission  
15 within the mission architecture defined to im-  
16 plement the Vision for Exploration.

17 (e) COMMERCIAL ORBITAL TRANSPORTATION SERV-  
18 ICE.—

19 (1) SENSE OF CONGRESS.—It is the sense of  
20 Congress that—

21 (A) a healthy and robust commercial space  
22 sector can make significant contributions to the  
23 successful conduct of the space exploration pro-  
24 gram of the Agency;

1 (B) while some activities are inherently  
2 governmental in nature, there are many other  
3 activities, such as routine supply of water, fuel,  
4 and other consumables to low Earth orbit or to  
5 destinations beyond low Earth orbit and provi-  
6 sion of power or communications services to  
7 lunar outposts, that potentially could be carried  
8 out effectively and efficiently by the commercial  
9 space sector at some point in the future; and

10 (C) the Administrator should look for such  
11 service opportunities and, to the maximum ex-  
12 tent practicable, make use of the commercial  
13 space sector to provide those services.

14 (2) ACCELERATION OF CAPABILITIES.—

15 (A) IN GENERAL.—The Administrator  
16 shall determine the degree to which an increase  
17 in the amounts authorized to be appropriated  
18 under section 3(a)(5) for the Commercial Or-  
19 bital Transportation Services project to be used  
20 by Phase One team members of such project in  
21 fiscal year 2009 would reasonably be expected  
22 to accelerate development of Capabilities A, B,  
23 and C of such project to an effective operations  
24 capability as close to 2010 as possible.

1 (B) AUTHORIZATION OF APPROPRIA-  
2 TIONS.—

3 (i) IN GENERAL.—There are author-  
4 ized to be appropriated to the Adminis-  
5 trator to carry out the accelerated develop-  
6 ment described in subparagraph (A) such  
7 sums as may be necessary for such pur-  
8 pose, for fiscal year 2009.

9 (ii) SUPPLEMENT NOT SUPPLANT.—  
10 The amount authorized to be appropriated  
11 by clause (i) for the purpose described in  
12 that clause is in addition to amounts au-  
13 thorized by section 3(a)(5).

14 (3) COMMERCIAL CREW CAPABILITY.—

15 (A) ESTABLISHMENT OF COMPETITION.—  
16 The Administrator shall establish a competition  
17 for completion of the Commercial Orbital  
18 Transportation Services crewed vehicle dem-  
19 onstration project by September 30, 2011, or as  
20 soon thereafter as is practicable.

21 (B) ELIGIBILITY FOR PARTICIPATION IN  
22 COMPETITION.—To be eligible to participate in  
23 the competition required by subparagraph (A),  
24 a candidate shall provide reasonable assurance,  
25 as determined by the Administrator, that it is

1 capable of delivering a crewed vehicle that  
2 meets the requirements as established by the  
3 Administrator within the time frame described  
4 in such subparagraph.

5 (C) SPACE ACT AGREEMENTS.—The Ad-  
6 ministrator shall enter into Space Act Agree-  
7 ments with not less than 2 teams for the com-  
8 petition required by subparagraph (A).

9 (D) AUTHORIZATION OF APPROPRIA-  
10 TIONS.—

11 (i) IN GENERAL.—There is authorized  
12 to be appropriated to the Administrator to  
13 carry out the activities required by this  
14 paragraph \$150,000,000 for fiscal year  
15 2009.

16 (ii) AVAILABILITY.—Amounts appro-  
17 priated pursuant to the authorization of  
18 appropriations under clause (i) shall re-  
19 main available until expended.

20 (iii) SUPPLEMENT NOT SUPPLANT.—  
21 The amount authorized to be appropriated  
22 by clause (i) for the purpose described in  
23 that clause is in addition to amounts au-  
24 thorized by section 3(a)(5).

1 **SEC. 6. SPACE SHUTTLE TRANSITION.**

2 (a) DISPOSITION OF SHUTTLE-RELATED ASSETS.—

3 (1) IN GENERAL.—Not later than 90 days after  
4 the date of the enactment of this Act, the Adminis-  
5 trator shall submit to Congress a plan for the dis-  
6 position of the remaining Space Shuttle Orbiters and  
7 other Space Shuttle program-related hardware and  
8 facilities after the retirement of the Space Shuttle  
9 fleet.

10 (2) PLAN REQUIREMENTS.—The plan sub-  
11 mitted under paragraph (1) shall include a descrip-  
12 tion of a process by which educational institutions,  
13 science museums, and other appropriate organiza-  
14 tions may acquire, through loan or disposal by the  
15 Federal Government, Space Shuttle program hard-  
16 ware.

17 (3) PROHIBITION ON DISPOSITION BEFORE  
18 COMPLETION OF PLAN.—The Administrator shall  
19 not dispose of any Space Shuttle program hardware  
20 before the plan required by paragraph (1) is sub-  
21 mitted to Congress.

22 (b) SPACE SHUTTLE TRANSITION LIAISON OF-  
23 FICE.—

24 (1) ESTABLISHMENT.—The Administrator shall  
25 establish a Space Shuttle Transition Liaison Office  
26 within the Office of Human Capital Management of

1 the Agency to assist local communities affected by  
2 the termination of the Space Shuttle program in  
3 mitigating the negative impacts on such commu-  
4 nities caused by such termination.

5 (2) MANNER OF ASSISTANCE.—In providing as-  
6 sistance under paragraph (1), the office established  
7 under such paragraph shall—

8 (A) offer technical assistance to commu-  
9 nities described in such paragraph to assist in  
10 the mitigation described in such paragraph; and

11 (B) serve as a clearinghouse to assist such  
12 communities in identifying services available  
13 from other Federal agencies to assist in such  
14 mitigation.

15 (3) TERMINATION OF OFFICE.—The office es-  
16 tablished under paragraph (1) shall terminate 2  
17 years after the completion of the last mission of a  
18 Space Shuttle Orbiter.

19 **SEC. 7. AEROSPACE SKILLS RETENTION AND INVESTMENT**  
20 **REUTILIZATION REPORT.**

21 (a) IN GENERAL.—The Administrator shall, in co-  
22 operation with the heads of other Federal agencies, includ-  
23 ing the Secretary of Commerce, the Secretary of Defense,  
24 the Secretary of Energy, the Secretary of Homeland Secu-  
25 rity, and the Secretary of Transportation—

1           (1) carry out an analysis of the facilities and  
2 human capital resources that will become available  
3 as a result of the retirement of the Space Shuttle  
4 program; and

5           (2) identify on-going or future Federal pro-  
6 grams and projects that could use such facilities and  
7 resources.

8           (b) REPORT.—Not later than 180 days after the date  
9 of the enactment of this Act, the Administrator shall sub-  
10 mit to the appropriate congressional committees a re-  
11 port—

12           (1) on the analysis required by paragraph (1)  
13 of subsection (a), including the findings of the Ad-  
14 ministrator with respect to such analysis; and

15           (2) describing the programs and projects identi-  
16 fied under paragraph (2) of such subsection.

17 **SEC. 8. PLAN TO SUPPORT OPERATIONS OF THE INTER-**  
18 **NATIONAL SPACE STATION BEYOND FISCAL**  
19 **YEAR 2015.**

20           (a) IN GENERAL.—Not later than 120 days after the  
21 date of the enactment of this Act, the Administrator shall  
22 submit to the appropriate congressional committees a plan  
23 to support the operations of the International Space Sta-  
24 tion beyond fiscal year 2015 for a period of not less than  
25 5 years.

1 (b) CONTENT.—The plan required by subsection (a)  
2 shall include the following:

3 (1) A list of critical hardware necessary to sup-  
4 port International Space Station operations and  
5 nonexploration-related research through the year  
6 2020.

7 (2) Specific known or anticipated maintenance  
8 actions that would need to be performed to support  
9 International Space Station operations and research  
10 as described in paragraph (1).

11 (3) A list and description of the flight cargo  
12 manifest, including potential vehicles that will deliver  
13 such cargo, to support the International Space Sta-  
14 tion after the retirement of the Space Shuttle Or-  
15 biter and through the year 2020.

16 (4) The budget assumptions made for carrying  
17 out such plan.

18 **SEC. 9. INTERNATIONAL SPACE STATION NATIONAL LAB-**  
19 **ORATORY.**

20 (a) MANAGEMENT AND TRANSPORTATION.—

21 (1) PLAN AND BUDGET.—Not later than 60  
22 days after the date of the enactment of this Act, the  
23 Administrator shall submit to the appropriate con-  
24 gressional committees—

1 (A) a plan for continuing the activities de-  
2 scribed in the operation plan of the Inter-  
3 national Space Station National Laboratory  
4 submitted to Congress in May, 2007, under sec-  
5 tion 507 of the National Aeronautics and Space  
6 Administration Authorization Act of 2005 (42  
7 U.S.C. 16767); and

8 (B) a budget plan that reflects the antici-  
9 pated use of such activities and the projected  
10 amounts to be required for fiscal years 2010  
11 through 2020 to accomplish the objectives of  
12 the activities described in subparagraph (A).

13 (2) INTERNATIONAL SPACE STATION UTILIZA-  
14 TION ADVISORY COMMITTEE.—

15 (A) ESTABLISHMENT.—The Administrator  
16 shall establish a committee to be known as the  
17 “International Space Station Utilization Advi-  
18 sory Committee” (in this paragraph referred to  
19 as the “Committee”).

20 (B) MEMBERSHIP.—

21 (i) COMPOSITION.—The Committee  
22 shall be composed of not less than 11 indi-  
23 viduals representing non-Agency govern-  
24 ment or private entities who have formal  
25 agreements with the Agency to utilize the

1 United States portion of the International  
2 Space Station, including allocations within  
3 partner elements.

4 (ii) CHAIR.—The Administrator shall  
5 appoint a chair from among the members  
6 of the Committee, who shall serve for a 2-  
7 year term.

8 (C) DUTIES OF THE COMMITTEE.—

9 (i) IN GENERAL.—The Committee  
10 shall make assessments and recommenda-  
11 tions regarding effective utilization of the  
12 International Space Station as a national  
13 laboratory and platform for research.

14 (ii) ANNUAL REPORT.—The Com-  
15 mittee shall submit to the Administrator,  
16 on an annual basis or more frequently as  
17 considered necessary by a majority of the  
18 members of the Committee, a report con-  
19 taining the assessments and recommenda-  
20 tions required by clause (i).

21 (D) DURATION.—The Committee shall  
22 exist for the life of the International Space Sta-  
23 tion.

24 (b) PLAN FOR AN APPROPRIATE STRUCTURE FOR  
25 MANAGEMENT OF NATIONAL LABORATORY RESEARCH.—

1           (1) PLAN REQUIRED.—Not later than 90 days  
2 after the date of the enactment of this Act, the Ad-  
3 ministrator shall develop and submit to the appro-  
4 priate congressional committees an implementation  
5 plan for an appropriate structure for management of  
6 national laboratory research.

7           (2) SUPPORT FOR DEVELOPMENT OF PLAN AU-  
8 THORIZED.—The Administrator may request the  
9 support of the National Academy of Sciences or  
10 other appropriate entity, including an external con-  
11 sultant, in developing the plan required by para-  
12 graph (1).

13           (3) AUTHORIZATION OF APPROPRIATIONS.—

14           (A) IN GENERAL.—There is authorized to  
15 be appropriated to the Administrator such sums  
16 as may be necessary to carry out this sub-  
17 section.

18           (B) SUPPLEMENT NOT SUPPLANT.—The  
19 amount authorized to be appropriated by sub-  
20 paragraph (A) for the purpose specified in that  
21 subparagraph is in addition to amounts author-  
22 ized by section 3.

23           (c) RESEARCH FUND.—

24           (1) ESTABLISHMENT OF FUND.—There is es-  
25 tablished in the Treasury of the United States a

1 fund to be known as the “International Space Sta-  
2 tion Research Fund”.

3 (2) PURPOSE.—Amounts in the International  
4 Space Station Research Fund shall be available to  
5 the Administrator—

6 (A) to underwrite research in partnership  
7 with entities with which the Administrator has  
8 established memoranda of understanding re-  
9 garding the research and scientific uses of the  
10 International Space Station National Labora-  
11 tory; and

12 (B) to support research hardware develop-  
13 ment, ground test and flight qualification, pay-  
14 load integration, and transportation costs for  
15 experiments to the International Space Station.

16 (3) PRIVATE SECTOR INVESTMENT.—The Sec-  
17 retary of the Treasury is authorized to accept con-  
18 tributions to the International Space Station Re-  
19 search Fund from private sector entities and trans-  
20 fers of funds from other Federal agencies.

21 (4) AUTHORIZATION OF APPROPRIATIONS.—

22 (A) IN GENERAL.—There is authorized to  
23 be appropriated to the International Space Sta-  
24 tion Research Fund \$200,000,000.

1 (B) AVAILABILITY.—Amounts appro-  
2 priated pursuant to the authorization of appro-  
3 priations under subparagraph (A) shall remain  
4 available until expended.

5 **SEC. 10. INTERNATIONAL SPACE STATION SCIENCE MIS-**  
6 **SION.**

7 (a) IN GENERAL.—The Administrator shall plan and  
8 conduct a Space Shuttle mission, in addition to any mis-  
9 sions scheduled as of the date of the enactment of this  
10 Act, to be undertaken within the planned operational life-  
11 time of the Space Shuttle program, for the scientific utili-  
12 zation of the International Space Station National Lab-  
13 oratory.

14 (b) MISSION.—

15 (1) IN GENERAL.—The purpose of the mission  
16 required to be planned under subsection (a) shall be  
17 to ensure the active use of the United States portion  
18 of the International Space Station as a National  
19 Laboratory by the delivery of launch-ready scientific  
20 payloads, such as the alpha magnetic spectrometer,  
21 to the Space Station as soon as the assembly of the  
22 International Space Station is completed.

23 (2) CORE PAYLOAD.—The planned core pay-  
24 loads for the mission shall be—

25 (A) the alpha magnetic spectrometer; and

1 (B) a single spacehab module, middeck-  
2 sized scientific payloads, or other scientific pay-  
3 load and related support equipment, whichever  
4 is most practicable.

5 (3) DEVELOPMENT AND COSTS OF EXPERI-  
6 MENTS.—

7 (A) DEVELOPMENT OF MODULES BY  
8 OTHER FEDERAL AGENCIES.—The plan re-  
9 quired by subsection (a) shall include utilization  
10 of the spacehab module or shuttle middeck-  
11 sized capacity by payloads consisting of experi-  
12 ments developed under memoranda of under-  
13 standing between the Administrator and the  
14 heads of other Federal agencies.

15 (B) COSTS OF DEVELOPING, PREPARING,  
16 AND INTEGRATING EXPERIMENTS.—The plan  
17 shall require each agency described in subpara-  
18 graph (A) to be responsible for—

19 (i) payment of the costs of developing  
20 and preparing the experiments described in  
21 subparagraph (A) for launch; and

22 (ii) sharing the cost associated with  
23 the integration of such experiments into  
24 the mission payload with other such agen-  
25 cies.

## 1 (4) OTHER EXPERIMENTS.—

2 (A) IN GENERAL.—In developing the plan  
3 required by subsection (a), the Administrator  
4 may consider experiments in addition to those  
5 described in paragraph (3) for the planned mis-  
6 sion if such additional experiments do not re-  
7 quire, in the aggregate, more than 25 percent  
8 of available payload capacity, including a cat-  
9 egory of experiments designated as “Direct  
10 Rapid Science”.

11 (B) ELIGIBILITY.—To be eligible for con-  
12 sideration under this paragraph for incorpora-  
13 tion into the plan, an experiment shall—

14 (i) have an existing principle investi-  
15 gator;

16 (ii) have already undergone feasibility  
17 demonstrations and flight selection in a  
18 previous Agency space station research se-  
19 lection process; and

20 (iii) be considered by the Adminis-  
21 trator to have significant research poten-  
22 tial.

23 (c) REPORT.—Not later than 90 days after the date  
24 of the enactment of this Act, the Administrator shall sub-

1 mit to the appropriate congressional committees a report  
2 containing the following:

3 (1) The plan required by subsection (a).

4 (2) An estimate of the total cost of imple-  
5 menting such plan.

6 (3) Assurance that implementation of the plan  
7 will not have a negative impact on—

8 (A) development of the Orion Crew Explo-  
9 ration Vehicle and the Ares I launch vehicles; or

10 (B) any other shuttle mission intended to  
11 assemble, equip, or supply the International  
12 Space Station.

13 (d) AUTHORIZATION OF APPROPRIATIONS.—

14 (1) IN GENERAL.—There is authorized to be  
15 appropriated to the Administrator such sums as may  
16 be necessary to carry out this section.

17 (2) SUPPLEMENT NOT SUPPLANT.—The  
18 amount authorized to be appropriated by paragraph  
19 (1) for the purpose described in that paragraph is  
20 in addition to amounts authorized by section 3.

21 **SEC. 11. SENSE OF CONGRESS ON USE OF SPACE LIFE**  
22 **SCIENCES LABORATORY AT KENNEDY SPACE**  
23 **CENTER.**

24 It is the sense of Congress that—

1           (1) the Space Life Sciences Laboratory at Ken-  
2           nedly Space Center represents a key investment and  
3           asset in the International Space Station National  
4           Laboratory capability; and

5           (2) such laboratory should be utilized to the  
6           maximum extent practicable in processing, pre-  
7           paring, monitoring, and validating life science ex-  
8           periments to be conducted on-board the Inter-  
9           national Space Station.

10 **SEC. 12. SCIENCE POLICY.**

11           (a) SCIENTIFIC RESEARCH IN GENERAL.—

12           (1) REAFFIRMATION OF SUPPORT.—Congress  
13           reaffirms its support for the well-balanced support of  
14           scientific research by the Agency.

15           (2) SENSE OF CONGRESS.—It is the sense of  
16           Congress that the science policy of the Agency  
17           should emphasize—

18                   (A) fundamental and basic research; and

19                   (B) the transition of scientific and re-  
20                   search findings and output to nongovernmental  
21                   entities for purpose of application development.

22           (b) NANOTECHNOLOGY.—

23           (1) REAFFIRMATION OF SUPPORT.—Congress  
24           reaffirms its support for research and development  
25           and application of nanotechnology by the Agency.

1           (2) SENSE OF CONGRESS.—It is the sense of  
2           Congress that the nanotechnology policy of the  
3           Agency should make use where appropriate of ongo-  
4           ing research and development in green nanoscience  
5           and nanomanufacturing to support the mission of  
6           the Agency.

7 **SEC. 13. AERONAUTICS.**

8           (a) SENSE OF CONGRESS.—It is the sense of Con-  
9           gress that—

10           (1) aeronautics research continues to be an im-  
11           portant core element of the Agency mission and  
12           should be supported;

13           (2) Agency aeronautics research should be guid-  
14           ed by and consistent with the national policy to  
15           guide aeronautics research and development pro-  
16           grams of the United States developed in accordance  
17           with section 101(c) of the National Aeronautics and  
18           Space Administration Authorization Act of 2005 (42  
19           U.S.C. 16611);

20           (3) Congress approves of the restructuring, by  
21           the Agency, of its aeronautics research programs  
22           with the aim of providing long-term stability and  
23           focus on high-quality innovative research that pro-  
24           duces ideas, capabilities, and technologies that are

1 critical enablers for the long-term technological lead-  
2 ership of the United States; and

3 (4) technologies developed by the Agency as de-  
4 scribed in paragraph (2) would help to secure the  
5 leadership role of the United States in global avia-  
6 tion and greatly enhance competitiveness of the  
7 United States in aeronautics in the future.

8 (b) ENVIRONMENTALLY FRIENDLY AIRCRAFT RE-  
9 SEARCH AND DEVELOPMENT INITIATIVE.—

10 (1) IN GENERAL.—The Administrator shall, in  
11 collaboration with the Administrator of the Federal  
12 Aviation Administration, establish an initiative of re-  
13 search, development, and demonstration of tech-  
14 nologies to achieve the environmental goals delin-  
15 eated in the Energy and Environment component of  
16 the National Plan for Aeronautics Research and De-  
17 velopment and Related Infrastructure submitted to  
18 the President in accordance with Executive Order  
19 13419, with—

20 (A) a focus by the Administrator on  
21 foundational research to enable new aircraft  
22 technologies and alternative fuels that are con-  
23 sistent with such goals; and

1 (B) complementary focus by the Adminis-  
2 trator of the Federal Aviation Administration  
3 on maturing such technologies and fuels.

4 (2) CHARACTERISTICS.—The initiative required  
5 by paragraph (1) shall seek to enable the following  
6 commercial aircraft performance characteristics:

7 (A) Noise levels on takeoff and on airport  
8 approach and landing that do not exceed ambi-  
9 ent noise levels in the absence of flight oper-  
10 ations in the vicinity of airports from which  
11 such commercial aircraft would normally oper-  
12 ate, without increasing energy consumption or  
13 nitrogen oxide emissions compared to aircraft in  
14 commercial service as of the date of the enact-  
15 ment of this Act.

16 (B) Significant reductions in greenhouse  
17 gas emissions compared to aircraft in commer-  
18 cial services as of the date of the enactment of  
19 this Act.

20 (c) RESEARCH ALIGNMENT.—In addition to pursuing  
21 the research and development initiative described in sub-  
22 section (b)(1), the Administrator shall, to the maximum  
23 extent practicable using available funding, align the funda-  
24 mental aeronautics research program of the Agency to ad-  
25 dress high-priority technology challenges described in the

1 2006 report of the National Research Council entitled  
2 “Decadal Survey of Civil Aeronautics”.

3 (d) RESEARCH PROGRAM TO DETERMINE PER-  
4 CEIVED IMPACT OF SONIC BOOMS.—

5 (1) SENSE OF CONGRESS.—It is the sense of  
6 Congress that—

7 (A) the ability to fly commercial aircraft  
8 over land at supersonic speeds without adverse  
9 impacts on the environment or on local commu-  
10 nities would open new markets and enable new  
11 transportation capabilities; and

12 (B) in order to have the basis for estab-  
13 lishing an appropriate sonic boom standard for  
14 such flight operations, a research program is  
15 needed to assess the impact of sonic booms in  
16 a relevant environment of commercial super-  
17 sonic flight operations.

18 (2) ESTABLISHMENT OF RESEARCH PROGRAM  
19 REQUIRED.—The Administrator shall establish a co-  
20 operative research program with industry and other  
21 stakeholders, including the conduct of flight dem-  
22 onstrations in a relevant environment, to collect data  
23 on the perceived impact of sonic booms. The data  
24 could enable the promulgation of appropriate stand-

1 ards for overland commercial supersonic flight oper-  
2 ations.

3 (3) COORDINATION OF SONIC BOOM RE-  
4 SEARCH.—The Administrator shall ensure that sonic  
5 boom research is coordinated with the Administrator  
6 of the Federal Aviation Administration and, to the  
7 maximum extent practicable, make use of the exper-  
8 tise of the Partnership for Air Transportation Noise  
9 and Emissions Reduction Center of Excellence spon-  
10 sored by the Federal Aviation Administration and  
11 the Agency.

12 (e) EXTERNAL REVIEW OF AVIATION SAFETY-RE-  
13 LATED RESEARCH PROGRAMS OF THE NATIONAL AERO-  
14 NAUTICS AND SPACE ADMINISTRATION.—

15 (1) REVIEW.—The Administrator shall enter  
16 into an arrangement with the National Research  
17 Council for an independent review of the aviation  
18 safety-related research programs of the Agency. The  
19 review shall assess the following:

20 (A) Whether such programs have well-de-  
21 fined, prioritized, and appropriate research ob-  
22 jectives.

23 (B) Whether such programs are properly  
24 coordinated with the safety research programs

1 of the Federal Aviation Administration and  
2 other relevant Federal agencies.

3 (C) Whether such programs have allocated  
4 appropriate resources to accomplish research  
5 objectives.

6 (D) Whether suitable mechanisms exist for  
7 transitioning the research results from such  
8 programs into operational technologies and pro-  
9 cedures and certification activities in a timely  
10 manner.

11 (2) REPORT.—Not later than 18 months after  
12 the date of the enactment of this Act, the Adminis-  
13 trator shall submit to the appropriate congressional  
14 committees a report on the results of the review re-  
15 quired by paragraph (1).

16 (f) IMPLEMENTATION OF CLIMATE CHANGE RE-  
17 SEARCH INITIATIVE.—

18 (1) IN GENERAL.—Not later than 1 year after  
19 the date of the enactment of this Act, the Adminis-  
20 trator shall, in coordination with the Global Change  
21 Research Program established under section 103 of  
22 the Global Change Research Act of 1990 (15 U.S.C.  
23 2933) and other appropriate agencies, implement  
24 the Climate Change Research Initiative as described  
25 in the report of the U.S. Climate Change Science

1 Program for fiscal year 2008 entitled “Our Chang-  
2 ing Planet”.

3 (2) RESEARCH PLAN FOR THE INITIATIVE.—

4 Not later than 1 year after the date of the enact-  
5 ment of this Act, the Federal entities implementing  
6 the Climate Change Research Initiative described in  
7 paragraph (1) shall review such initiative and ensure  
8 that such initiative includes a research plan that in-  
9 cludes—

10 (A) objectives;

11 (B) proposed tasks;

12 (C) milestones; and

13 (D) a 5-year budgetary profile.

14 (3) REVIEW OF RESEARCH INITIATIVE.—

15 (A) IN GENERAL.—The Administrator  
16 shall enter into an arrangement with the Na-  
17 tional Research Council to conduct an inde-  
18 pendent review of the Climate Change Research  
19 Initiative described in paragraph (1).

20 (B) REPORT.—Not later than 2 years after  
21 the date of the enactment of this Act, the Ad-  
22 ministrator shall submit to the appropriate con-  
23 gressional committees a report on the results of  
24 the review conducted under subparagraph (A).

1 (g) FUNDING FOR RESEARCH AND DEVELOPMENT  
2 ACTIVITIES IN SUPPORT OF OTHER MISSION DIREC-  
3 TORATES.—Research and development activities per-  
4 formed by the Aeronautics Research Mission Directorate  
5 of the Agency with the primary objective of assisting in  
6 the development of a flight project in another Mission Di-  
7 rectorate of the Agency shall be funded by the Mission  
8 Directorate seeking assistance.

9 (h) ENHANCEMENT OF GRANT PROGRAM ON ESTAB-  
10 LISHMENT OF UNIVERSITY-BASED CENTERS FOR RE-  
11 SEARCH ON AVIATION TRAINING.—Section 427(a) of the  
12 National Aeronautics and Space Administration Author-  
13 ization Act of 2005 (42 U.S.C. 16727(a)) is amended by  
14 striking “may” and inserting “shall”.

15 **SEC. 14. DEVELOPMENT OF ENHANCED-USE LEASE POLICY.**

16 (a) IN GENERAL.—The Administrator shall develop  
17 an agency-wide enhanced-use lease policy that—

- 18 (1) is based upon sound business practices and  
19 lessons learned from the demonstration centers; and  
20 (2) establishes controls and procedures to en-  
21 sure accountability and protect the interests of the  
22 Government.

23 (b) CONTENTS.—The policy required by subsection  
24 (a) shall include the following:

1           (1) Criteria for determining whether enhanced-  
2 use lease provides better economic value to the Gov-  
3 ernment than other options, such as—

4                   (A) Federal financing through appropria-  
5 tions; or

6                   (B) sale of the property.

7           (2) Measures of effectiveness for the enhanced-  
8 use lease program.

9           (3) Accounting controls and procedures to en-  
10 sure accountability, such as an audit trail and docu-  
11 mentation to readily support financial transactions.

12       (c) ENHANCED ANNUAL REPORT.—Section 315(f) of  
13 the National Aeronautics and Space Administration Act  
14 of 1958 (42 U.S.C. 2459j(f)) is amended by adding at  
15 the end the following: “Such report shall include the fol-  
16 lowing:

17                   “(1) Information that identifies and quantifies  
18 the value of the arrangements and expenditures of  
19 revenues received under this section.

20                   “(2) The availability and use of funds received  
21 under this section for the Agency’s operating  
22 plans.”.

23       (d) DISTRIBUTION OF CASH CONSIDERATION RE-  
24 CEIVED.—

1           (1) IN GENERAL.—Section 315(b)(3)(B) of  
2 such Act (42 U.S.C. 2459j(b)(3)(B)) is amended to  
3 read as follows:

4           “(B) Of any amounts of cash consideration re-  
5 ceived under this subsection that are not utilized in  
6 accordance with subparagraph (A)—

7                   “(i) 20 percent shall be deposited in a cap-  
8 ital asset account to be established by the Ad-  
9 ministrator, shall be available for maintenance,  
10 capital revitalization, and improvements of the  
11 real property assets and related personal prop-  
12 erty under the jurisdiction of the Administrator,  
13 and shall remain available until expended; and

14                   “(ii) the remaining 80 percent shall be  
15 available to the respective center or facility of  
16 the Administration engaged in the lease of non-  
17 excess real property, and shall remain available  
18 until expended.”.

19           (2) CONFORMING AMENDMENTS.—Section 533  
20 of the Consolidated Appropriations Act, 2008 (Pub-  
21 lic Law 110–161; 121 Stat. 1931) is amended—

22                   (A) by striking subsection (b)(4)(A); and

23                   (B) in subsection (d), by striking “the fol-  
24 lowing” and all that follows through “The au-

1           thority to enter” and inserting the following:

2           “the following new subsection (g):

3           ““(g) SUNSET.—The authority to enter”.

4 **SEC. 15. STUDY ON LEASING PRACTICES OF FIELD CEN-**  
5 **TERS.**

6           (a) STUDY.—Not later than 180 days after the date  
7 of the enactment of this Act, the Administrator shall com-  
8 plete a study on the leasing practices of all field centers  
9 of the Agency, including the Michoud Assembly Facility.  
10 Such study shall include the following:

11           (1) The method by which overhead maintenance  
12 expenses are distributed among tenants of such field  
13 centers.

14           (2) Identification of the impacts of such method  
15 on attracting businesses and partnerships to such  
16 field centers.

17           (3) Identification of the steps that can be taken  
18 to mitigate any adverse impacts identified under  
19 paragraph (2).

20           (b) REPORT.—Not later than 180 days after the date  
21 of the enactment of this Act, the Administrator shall sub-  
22 mit to the appropriate congressional committees a report  
23 on the study required by subsection (a), including the fol-  
24 lowing:

1           (1) The findings of the Administrator with re-  
2           spect to such study.

3           (2) A description of the impacts identified  
4           under subsection (a)(2).

5           (3) The steps identified under subsection  
6           (a)(3).

7 **SEC. 16. STUDY AND REPORT ON PROJECT ASSIGNMENT**  
8 **AND WORK ALLOCATION OF FIELD CENTERS.**

9           (a) STUDY.—

10           (1) IN GENERAL.—Not later than 180 days  
11           after the date of the enactment of this Act, the Ad-  
12           ministrator shall complete a study of all field centers  
13           of the Agency, including the Michoud Assembly Fa-  
14           cility.

15           (2) MATTERS STUDIED.—The study required by  
16           paragraph (1) shall include the following:

17           (A) The mission and future roles and re-  
18           sponsibilities of the field centers described in  
19           paragraph (1).

20           (B) How and where design, development,  
21           test, and evaluation work and research and de-  
22           velopment work and assignments can augment  
23           the activities planned for such field centers that  
24           have traditionally been engaged primarily in op-  
25           erations efforts.

1 (b) REPORT.—

2 (1) IN GENERAL.—Not later than 180 days  
3 after the date of the enactment of this Act, the Ad-  
4 ministrator shall submit to the appropriate congres-  
5 sional committees a report on the study required by  
6 subsection (a)(1).

7 (2) CONTENT.—The report required by para-  
8 graph (1) shall include the following:

9 (A) A comprehensive analysis of the work  
10 allocation of all field centers of the Agency, in-  
11 cluding the Michoud Assembly Facility.

12 (B) A description of the program and  
13 project roles, functions, and activities assigned  
14 to each field center.

15 (C) Details how field centers are selected  
16 and designated for lead and support role work  
17 assignments (including program and contract  
18 management assignments).

19 (D) A description of how the portfolios of  
20 field centers described in subsection (a)(2)(B)  
21 can be diversified with—

22 (i) design, development, test, and eval-  
23 uation assignments; and

24 (ii) research and development assign-  
25 ments.

1 **SEC. 17. INTERAGENCY STUDY OF COMMERCIAL SPACE**  
2 **RANGE OPTIONS.**

3 (a) **STUDY BY INTERAGENCY COMMISSION.**—The Ad-  
4 ministrator shall, in consultation with the Secretary of  
5 Transportation, the Secretary of Defense, and other ap-  
6 propriate Federal Government officials, establish an inter-  
7 agency commission to conduct a study—

8 (1) to identify the issues and challenges associ-  
9 ated with establishing a space launch range and fa-  
10 cilities, in close proximity to the Eastern Range,  
11 that are fully dedicated to commercial space mis-  
12 sions; and

13 (2) to develop, in consultation with other appro-  
14 priate State and Federal governmental entities, a  
15 critical path schedule for establishing the range and  
16 facilities described in paragraph (1).

17 (b) **REPORT.**—Not later than December 31, 2009,  
18 the Administrator shall submit to the appropriate congres-  
19 sional committees a report on the results of the study con-  
20 ducted under subsection (a).

21 **SEC. 18. SENSE OF CONGRESS ON REESTABLISHMENT OF**  
22 **NATIONAL SPACE COUNCIL IN EXECUTIVE**  
23 **OFFICE OF THE PRESIDENT.**

24 It is the sense of Congress that the President should  
25 appoint members to the National Space Council in accord-  
26 ance with section 501 of the National Aeronautics and

1 Space Administration Authorization Act, Fiscal Year  
2 1989 (42 U.S.C. 2471).

3 **SEC. 19. REVIEW OF SUBORBITAL MISSION CAPABILITIES.**

4 (a) IN GENERAL.—Not later than 120 days after the  
5 date of the enactment of this Act, the Administrator shall  
6 conduct a review of the suborbital mission capabilities of  
7 the Agency.

8 (b) MATTERS REVIEWED.—The review required by  
9 subsection (a) shall include a review of the following:

10 (1) Existing programs that make use of sub-  
11 orbital flights.

12 (2) Existing or planned launch facilities for  
13 suborbital missions.

14 (3) Opportunities for scientific research, train-  
15 ing, and educational collaboration in the conduct of  
16 suborbital missions by the Agency.

17 (c) REPORT.—

18 (1) IN GENERAL.—Not later than 120 days  
19 after the date of the enactment of this Act, the Ad-  
20 ministrator shall submit to the appropriate congres-  
21 sional committees a report on the review required by  
22 subsection (a).

23 (2) CONTENTS.—The report required by para-  
24 graph (1) shall include the following:

1 (A) A summary of the review required by  
2 subsection (a).

3 (B) The findings of the Administrator with  
4 respect to such review.

5 (C) Recommendations regarding the  
6 growth of suborbital launch programs con-  
7 ducted by the Agency.

8 (D) The steps necessary to ensure such  
9 programs are conducted using domestic launch  
10 facilities to the maximum extent feasible, in-  
11 cluding any rationale and justification for using  
12 nondomestic facilities for such missions.

13 **SEC. 20. INITIATION OF DISCUSSIONS ON DEVELOPMENT**  
14 **OF FRAMEWORK FOR SPACE TRAFFIC MAN-**  
15 **AGEMENT.**

16 (a) FINDING.—Congress finds that as more countries  
17 acquire the capability for launching payloads into outer  
18 space, there is an increasing need for a framework under  
19 which information intended to promote safe access into  
20 outer space, operations in outer space, and return from  
21 outer space to Earth free from physical or radio-frequency  
22 interference can be shared among those countries.

23 (b) DISCUSSIONS.—The Administrator shall, in con-  
24 sultation with such other agencies of the Federal Govern-  
25 ment as the Administrator considers appropriate, initiate

1 discussions with the appropriate representatives of other  
2 space-faring countries to determine an appropriate frame-  
3 work under which information intended to promote safe  
4 access into outer space, operations in outer space, and re-  
5 turn from outer space to Earth free from physical or  
6 radio-frequency interference can be shared among those  
7 nations.

8 **SEC. 21. STUDY ON EXPORT CONTROL POLICIES RELATED**  
9 **TO CIVIL AND COMMERCIAL SPACE ACTIVI-**  
10 **TIES.**

11 (a) REVIEW.—Not later than 270 days after the date  
12 of the enactment of this Act, the Director of the Office  
13 of Science and Technology Policy, in coordination with the  
14 Secretary of State, shall carry out a study on the impact  
15 of current export control policies and implementation di-  
16 rectives on—

17 (1) national security;

18 (2) the United States aerospace industry and  
19 the competitiveness of such industry in global mar-  
20 kets; and

21 (3) the ability of Federal agencies to carry out  
22 cooperative activities in science and technology and  
23 human space flight, including the impact on research  
24 carried out under the sponsorship of such agencies.

1           (b) NATIONAL SECURITY CONSIDERATIONS.—In car-  
2 rying out the study, the Director shall assess and evaluate  
3 the impacts described in paragraphs (2) and (3) of sub-  
4 section (a) with national security concerns and needs. Any  
5 recommendations included in the report required by sub-  
6 section (d) shall include a description of the risk to and  
7 implications for national security.

8           (c) CONSULTATION.—In carrying out the study re-  
9 quired by subsection (a), the Director shall seek input  
10 from representatives of the following:

11           (1) Industry.

12           (2) Academia.

13           (3) The science community.

14           (4) All affected Federal agencies.

15           (5) Such other organizations and individuals as  
16 the Director considers appropriate.

17           (d) REPORT.—Not later than 270 days after the date  
18 of the enactment of this Act, the Director shall submit  
19 to the appropriate congressional committees a report on  
20 the findings of the Director with respect to the study re-  
21 quired by subsection (a), including any recommendations  
22 of the Director with respect to the matter covered by such  
23 study.

1 **SEC. 22. NEAR-EARTH OBJECTS.**

2 (a) REAFFIRMATION OF POLICY ON SURVEYING  
3 NEAR-EARTH ASTEROIDS AND COMETS.—Congress reaf-  
4 firms the policy set forth in section 102(g) of the National  
5 Aeronautics and Space Act of 1958 (42 U.S.C. 2451(g))  
6 (relating to surveying near-Earth asteroids and comets).

7 (b) AFFIRMATION OF SUPPORT OF NEAR-EARTH OB-  
8 JECT SURVEY.—Congress affirms its support of the Near-  
9 Earth Object Survey program required by section  
10 321(d)(1) of the National Aeronautics and Space Admin-  
11 istration Authorization Act of 2005 (42 U.S.C.  
12 16691(d)(1)).

13 (c) SENSE OF CONGRESS ON BENEFITS OF NEAR-  
14 EARTH OBJECT PROGRAM ACTIVITIES.—It is the sense  
15 of Congress that the near-Earth object program activities  
16 of the Agency will provide benefits to the scientific and  
17 exploration activities of the Agency.

18 (d) REQUESTS FOR INFORMATION.—The Adminis-  
19 trator shall issue requests for information on—

20 (1) a low-cost space mission with the purpose of  
21 a rendez-vous with and characterization of the  
22 Apophis asteroid; and

23 (2) a medium-sized space mission with the pur-  
24 pose of detecting near-Earth objects equal to or  
25 greater than 140 meters in diameter.

1 (e) ESTABLISHMENT OF POLICY WITH RESPECT TO  
2 THREATS POSED BY NEAR-EARTH OBJECTS.—The Direc-  
3 tor of the Office of Science and Technology Policy shall—

4 (1) develop a policy for notifying Federal agen-  
5 cies and relevant emergency response institutions of  
6 an impending near-Earth object threat, if near term  
7 public safety is at risk; and

8 (2) recommend a Federal agency or agencies to  
9 be responsible for—

10 (A) protecting the United States from a  
11 near-Earth object that is expected to collide  
12 with Earth; and

13 (B) implementing a deflection campaign, in  
14 consultation with international bodies, should  
15 one be necessary.

16 (f) PLANETARY RADAR CAPABILITY.—The Adminis-  
17 trator shall maintain a planetary radar that is comparable  
18 to the capability provided through the Deep Space Net-  
19 work Goldstone facility of the Agency.

20 **SEC. 23. ENHANCEMENT OF EDUCATIONAL ROLE OF NA-**  
21 **TIONAL AERONAUTICS AND SPACE ADMINIS-**  
22 **TRATION.**

23 (a) DEVELOPMENT OF PLAN FOR UTILIZATION OF  
24 INTERNATIONAL SPACE STATION IN SUPPORT OF EDU-  
25 CATION ACTIVITIES.—

1           (1) IN GENERAL.—Not later than 120 days  
2 after the date of the enactment of this Act, the Ad-  
3 ministrator shall develop and submit to the appro-  
4 priate congressional committees a plan for utilization  
5 of the International Space Station in support of edu-  
6 cational activities in the areas of science, technology,  
7 engineering, and mathematics.

8           (2) USE OF PRIOR REPORT.—In developing the  
9 plan required by paragraph (1), the Administrator  
10 shall use the report submitted to Congress under  
11 section 507(c) of the National Aeronautics and  
12 Space Administration Authorization Act of 2005 (42  
13 U.S.C. 16767(c)) entitled “NASA Report to Con-  
14 gress Regarding a Plan for the International Space  
15 Station National Laboratory” and dated May 2007,  
16 with special emphasis on the findings of the Inter-  
17 Agency Task Force on International Space Station  
18 National Laboratory Concept Development, dated  
19 December 2006 and included in such report.

20           (b) SUPPORT OF SOUNDING-ROCKETS, HIGH-ALTI-  
21 TUDE BALLOON, SUBORBITAL FLIGHT, AND SMALL SAT-  
22 ELLITE PAYLOAD OPPORTUNITIES FOR HANDS-ON  
23 TRAINING FOR STUDENTS AND INSTRUCTORS IN HIGHER  
24 EDUCATION.—

1           (1) ESTABLISHMENT OF GOAL REQUIRED.—In  
2           accordance with the provisions of this subsection, the  
3           Administrator shall establish as a goal the funding  
4           of sounding-rockets, high-altitude balloon, suborbital  
5           flight, and small satellite payload opportunities di-  
6           rectly linked to programs such as the Graduate Stu-  
7           dent Researchers Program of the Agency to provide  
8           significant hands-on training, learning, and research  
9           opportunities for students and instructors in higher  
10          education.

11          (2) AGGREGATE FUNDING GOAL.—The goal re-  
12          quired by paragraph (1) shall include providing an  
13          aggregate amount of funding for opportunities de-  
14          scribed in such paragraph equal to not less than 1  
15          percent of the aggregate amount authorized under  
16          section 3(a).

17          (3) SENSE OF CONGRESS ON FUNDING OF OP-  
18          PORTUNITIES.—It is the sense of Congress that  
19          funding for opportunities described in paragraph (1)  
20          should be considered part of the contribution of the  
21          Agency to United States competitive and educational  
22          enhancement and should represent increased funding  
23          as contemplated in section 2001 of the America  
24          COMPETES Act (42 U.S.C. 16611(a)).

1           (c) PROGRAM OF COOPERATIVE UNMANNED AERIAL  
2 VEHICLE DEVELOPMENT.—The Administrator in co-  
3 operation with the Administrator of the National Oceanic  
4 and Atmospheric Administration and in consultation with  
5 the Administrator of the Federal Aviation Administration,  
6 shall continue a program of unmanned aerial vehicle devel-  
7 opment and applications, and may enter into cooperative  
8 agreements with existing university-based unmanned aer-  
9 ial vehicle flight programs and assets, including develop-  
10 ment of appropriate applications of small unmanned aerial  
11 vehicle technologies and systems in remote areas.

12           (d) THE EXPERIMENTAL PROGRAM TO STIMULATE  
13 COMPETITIVE RESEARCH.—Of the amounts authorized in  
14 section 3(a)(4), not less than \$20,000,000 shall be avail-  
15 able in fiscal year 2009 for the Experimental Program to  
16 Stimulate Competitive Research. In order to ensure that  
17 research expertise and talent throughout the nation is de-  
18 veloped and engaged in Agency research and education ac-  
19 tivities, the Agency shall, as part of its annual budget sub-  
20 mission, detail additional steps that can be taken to fur-  
21 ther integrate the participating States in both existing and  
22 new or emerging Agency research programs and center ac-  
23 tivities.

24           (e) NATIONAL SPACE GRANT COLLEGE AND FEL-  
25 LOWSHIP PROGRAM.—The Agency shall continue its em-

1 phasis on the importance of education to expand opportu-  
2 nities for Americans to understand and participate in the  
3 Agency's aeronautics and space projects by supporting  
4 and enhancing science and engineering education, re-  
5 search, and public outreach efforts. To achieve this objec-  
6 tive, of the amounts authorized in section 3(a)(4), not less  
7 than \$32,000,000 shall be available in fiscal year 2009  
8 for the National Space Grant College and Fellowship Pro-  
9 gram.

10 **SEC. 24. ESTABLISHMENT OF OFFICE OF PROGRAM ANAL-**  
11 **YSIS AND EVALUATION.**

12 (a) ESTABLISHMENT.—The Administrator shall es-  
13 tablish within the Agency an office to be known as the  
14 “Office of Program Analysis and Evaluation” (in this sec-  
15 tion referred to as the “Office”).

16 (b) FUNCTION.—The functions of the Office are as  
17 follows:

18 (1) To develop strategic plans for the Agency in  
19 accordance with section 306 of title 5, United States  
20 Code.

21 (2) To develop annual performance plans for  
22 the Agency in accordance with section 1115 of title  
23 31, United States Code.

24 (3) To provide analysis and recommendations  
25 to the Administrator on matters relating to the plan-

1       ning and programming phases of the Planning, Pro-  
2       gramming, Budgeting, and Execution system of the  
3       Agency.

4           (4) To provide analysis and recommendations  
5       to the Administrator on matters relating to acquisi-  
6       tion management and program oversight, including  
7       cost-estimating processes, contractor cost reporting  
8       processes, and contract performance assessments.

9       (c) OBJECTIVES.—In performing the functions de-  
10      scribed in subsection (b), the objectives of the Office are  
11      the following:

12           (1) To align the Agency’s mission, strategic  
13      plan, budget, and performance plan with strategic  
14      goals and institutional requirements of the Agency.

15           (2) To provide objective analysis of programs  
16      and institutions of the Agency—

17           (A) to generate investment options for the  
18      Agency; and

19           (B) to inform strategic decision making in  
20      the Agency.

21           (3) To enable cost-effective, strategically  
22      aligned execution of programs and projects by the  
23      Agency.

1           (4) To perform independent cost estimation in  
2 support of Agency decision making and establish-  
3 ment of standards for agency cost analysis.

4           (5) To ensure that budget formulation and exe-  
5 cution are consistent with strategic investment deci-  
6 sions of the Agency.

7           (6) To provide independent program and  
8 project reviews that address the credibility of tech-  
9 nical, cost, schedule, risk, and management ap-  
10 proaches with respect to available resources.

11           (7) To facilitate progress by the Agency toward  
12 meeting the commitments of the Agency.

13 **SEC. 25. METHANE INVENTORY.**

14           Within 12 months after the date of enactment of this  
15 Act, the Administrator, in conjunction with the Adminis-  
16 trator of the National Oceanic and Atmospheric Adminis-  
17 tration and other appropriate Federal agencies and aca-  
18 demic institutions, shall conduct an inventory of natural  
19 methane stocks and fluxes in the Polar Region of the  
20 United States.

21 **SEC. 26. REDUCTION-IN-FORCE MORATORIUM.**

22           The Agency may not initiate or implement a reduc-  
23 tion-in-force, or conduct any other involuntary separations  
24 of permanent, non-Senior Executive Service, civil servant

1 employees before December 31, 2010, except for cause on  
2 charges of misconduct, delinquency, or inefficiency.

3 **SEC. 27. LIMIT ON THE USE OF TERM POSITIONS.**

4 The Administrator shall limit the percentage of em-  
5 ployees in term positions, excluding students and coopera-  
6 tives, within the Agency to not more less than 10 percent  
7 of the total number of non-Senior Executive Service, civil  
8 servant employees in fiscal year 2009.

9 **SEC. 28. PROTECTION OF SCIENTIFIC CREDIBILITY, INTEG-**  
10 **RITY, AND COMMUNICATION WITHIN THE NA-**  
11 **TIONAL AERONAUTICS AND SPACE ADMINIS-**  
12 **TRATION.**

13 (a) SENSE OF THE CONGRESS.—It is the sense of  
14 Congress that the Agency should not dilute, distort, sup-  
15 press, or impede scientific research or the dissemination  
16 thereof.

17 (b) STUDY.—Within 60 days after the date of enact-  
18 ment of this Act, the Comptroller General shall—

19 (1) conduct a study to determine whether the  
20 regulations set forth in part 1213 of title 14, Code  
21 of Federal Regulations, are effective in ensuring that  
22 the sense of the Congress expressed in subsection (a)  
23 is being observed; and

24 (2) transmit a report to the Congress setting  
25 forth the Comptroller General's findings, conclu-

1       sions, and recommendations, including any rec-  
2       ommendations the Comptroller General finds appro-  
3       priate with respect to establishing and carrying out  
4       a Federal policy that addresses both the dissemina-  
5       tion of scientific research and Federal agency media  
6       policy.



Calendar No. 884

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

**S. 3270**

[Report No. 110-422]

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## **A BILL**

To reauthorize the National Aeronautics and Space  
Administration, and for other purposes.

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JULY 16, 2008

Read twice and placed on the calendar