Lewis (KY)	Petri	Shimkus
Linder	Pickering	Shuster
LoBiondo	Pitts	Simmons
Lucas	Platts	Smith (NJ)
Lungren, Daniel E.	Poe	Smith (TX)
Mack	Pombo	Sodrel
Manzullo	Porter	Souder
Marchant	Price (GA)	Stearns
McCaul (TX)	Pryce (OH)	Sullivan
McCotter	Putnam	Sweeney
McCrery	Radanovich	Tancredo
McHenry	Ramstad	Taylor (NC)
McHugh	Regula	Terry
McKeon	Rehberg	Thomas
McMorris	Reichert	Thornberry
Mica	Renzi	Tiahrt
Miller (FL)	Reynolds	Tiberi
Miller (MI)	Rogers (AL)	Turner
Murphy	Rogers (KY)	Upton
Musgrave	Rogers (MI)	Walden (OR)
Myrick	Rohrabacher	Walsh
Neugebauer	Ros-Lehtinen	Wamp
Ney	Royce	Weldon (FL)
Northup	Ryan (WI)	Weldon (PA)
Norwood	Ryun (KS)	Weller
Nunes	Saxton	Westmoreland
Nussle	Schmidt	Whitfield
Osborne	Schwarz (MI)	Wicker
Otter	Sensenbrenner	Wilson (NM)
Oxley	Sessions	Wilson (SC)
Pearce	Shaw	Wolf
Pence	Shays	Young (AK)
	Sherwood	Young (FL)

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Abercrombie	Frank (MA)	Michaud
Ackerman	Gilchrest	Millender-McDonald
Allen	Gonzalez	Miller (NC)
Andrews	Gordon	Miller, George
Baca	Green, Al	Mollohan
Baird	Green, Gene	Moore (KS)
Baldwin	Grijalva	Moore (WI)
Barrow	Gutierrez	Moran (VA)
Bartlett (MD)	Harman	Murtha
Bean	Hastings (FL)	Nadler
Becerra	Herseth	Napolitano
Berkley	Higgins	Neal (MA)
Berry	Hinchey	Oberstar
Bishop (GA)	Hinojosa	Obey
Bishop (NY)	Holden	Olver
Blumenauer	Holt	Ortiz
Boren	Honda	Owens
Boucher	Hooley	Pallone
Brady (PA)	Hostettler	Pascrell
Brown (OH)	Hoyer	Pastor
Brown, Corrine	Inslee	Payne
Butterfield	Israel	Pelosi
Capps	Jackson (IL)	Peterson (MN)
Capuano	Jackson-Lee (TX)	Pomeroy
Cardin	Jefferson	Price (NC)
Cardoza	Johnson, E. B.	Rahall
Carnahan	Jones (NC)	Rangel
Carson	Jones (OH)	Reyes
Case	Kanjorski	Ross
Chandler	Kaptur	Rothman
Clay	Kennedy (RI)	Roybal-Allard
Cleaver	Kildee	Ruppersberger
Clyburn	Kilpatrick (MI)	Rush
Conyers	Kucinich	Ryan (OH)
Cooper	Langevin	Sabo
Costa	Lantos	Salazar
Costello	Larsen (WA)	Sánchez, Linda T.
Cramer	Larson (CT)	Sanchez, Loretta
Crowley	Leach	Sanders
Cuellar	Lee	Schakowsky
Cummings	Levin	Schiff
Davis (AL)	Lewis (GA)	Schwartz (PA)
Davis (CA)	Lipinski	Scott (GA)
Davis (FL)	Lofgren, Zoe	Scott (VA)
Davis (IL)	Lowey	Serrano
Davis (TN)	Lynch	Sherman
DeFazio	Maloney	Simpson
DeGette	Markey	Skelton
Delahunt	Marshall	Slaughter
DeLauro	Matheson	Smith (WA)
Dicks	Matsui	Snyder
Dingell	McCarthy	Solis
Doggett	McCollum (MN)	Spratt
Doyle	McDermott	Stark
Edwards	McGovern	Strickland
Emanuel	McIntyre	Stupak
Engel	McKinney	Tanner
Eshoo	McNulty	Tauscher
Etheridge	Meehan	Taylor (MS)
Evans	Meek (FL)	Thompson (CA)
Farr	Meeks (NY)	Thompson (MS)
Fattah	Melancon	Tierney
Filner	Menendez	Udall (CO)
Ford	Michaud	Udall (NM)
Frank (MA)	Millender-McDonald	Van Hollen
Gilchrest	Miller (NC)	Velázquez
Gonzalez	Miller, George	Visclosky
Gordon	Mollohan	Wasserman Schultz
Green, Al	Moore (KS)	Waters
Green, Gene	Moore (WI)	Watson
Grijalva	Moran (VA)	Watt
Gutierrez	Murtha	Waxman
Harman	Nadler	Weiner
Hastings (FL)	Napolitano	Wexler
Herseth	Neal (MA)	Woolsey
Higgins	Oberstar	Wu
Hinchey	Obey	Wynn
Hinojosa	Olver	
Holden	Ortiz	
Holt	Owens	
Honda	Pallone	
Hooley	Pascrell	
Hostettler	Pastor	
Hoyer	Payne	
Inslee	Pelosi	
Israel	Peterson (MN)	
Jackson (IL)	Pomeroy	
Jackson-Lee (TX)	Price (NC)	
Jefferson	Rahall	
Johnson, E. B.	Rangel	
Jones (NC)	Reyes	
Jones (OH)	Ross	
Kanjorski	Rothman	
Kaptur	Roybal-Allard	
Kennedy (RI)	Ruppersberger	
Kildee	Rush	
Kilpatrick (MI)	Ryan (OH)	
Kucinich	Sabo	
Langevin	Salazar	
Lantos	Sánchez, Linda T.	
Larsen (WA)	Sanchez, Loretta	
Larson (CT)	Sanders	
Leach	Schakowsky	
Lee	Schiff	
Levin	Schwartz (PA)	
Lewis (GA)	Scott (GA)	
Lipinski	Scott (VA)	
Lofgren, Zoe	Serrano	
Lowey	Sherman	
Lynch	Simpson	
Maloney	Skelton	
Markey	Slaughter	
Marshall	Smith (WA)	
Matheson	Snyder	
Matsui	Solis	
McCarthy	Spratt	
McCollum (MN)	Stark	
McDermott	Strickland	
McGovern	Stupak	
McIntyre	Tanner	
McKinney	Tauscher	
McNulty	Taylor (MS)	
Meehan	Thompson (CA)	
Meek (FL)	Thompson (MS)	
Meeks (NY)	Tierney	
Melancon	Udall (CO)	
Menendez	Udall (NM)	
	Van Hollen	
	Velázquez	
	Visclosky	
	Wasserman Schultz	
	Waters	
	Watson	
	Watt	
	Waxman	
	Weiner	
	Wexler	
	Woolsey	
	Wu	
	Wynn	

NOT VOTING—18

Beauprez	Fossella	Miller, Gary
Berman	Gallegly	Moran (KS)
Boswell	Hall	Paul
Boyd	Jindal	Peterson (PA)
Cunningham	Kind	Shadegg
Flake	LaHood	Towns

□ 1805

Mr. FORTENBERRY changed his vote from ''nay'' to ''yea.''

So the resolution, as amended, was agreed to.

The result of the vote was announced as above recorded.

A motion to reconsider was laid on the table.

Stated against:

Mr. BERMAN. Mr. Speaker, due to a death in the family, I was unable to vote on H. Res. 563. Had I been present, I would have voted "no."

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION AUTHORIZATION ACT OF 2005

Mr. BOEHLERT. Mr. Speaker, I ask unanimous consent to take from the Speaker's table the Senate bill (S. 1281) to authorize appropriations for the National Aeronautics and Space Administration for science, aeronautics, exploration, exploration capabilities, and the Inspector General, and for other purposes, for fiscal years 2006, 2007, 2008, 2009, and 2010, and ask for its immediate consideration in the House.

The Clerk read the title of the Senate bill.

The SPEAKER pro tempore (Mr. SIMPSON). Is there objection to the request of the gentleman from New York?

There was no objection.

The Clerk read the Senate bill, as follows:

S. 1281

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) SHORT TITLE.—This Act may be cited as ''National Aeronautics and Space Administration Authorization Act of 2005''.

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

SEC. 2. FINDINGS.

The Congress finds the following:

(1) It is the policy of the United States to advance United States scientific, security, and economic interests through a healthy and active space exploration program.

(2) Basic and applied research in space science, Earth science, and aeronautics remain a significant part of the Nation's goals for the use and development of space. Basic research and development is an important component of NASA's program of exploration and discovery.

(3) Maintaining the capability to safely send humans into space is essential to United States national and economic security, United States preeminence in space, and inspiring the next generation of explorers. Thus, a gap in United States human space flight capability is harmful to the national interest.

(4) The exploration, development, and permanent habitation of the Moon will inspire the Nation, spur commerce, imagination, and excitement around the world, and open the possibility of further exploration of Mars. NASA should return to the Moon within the next decade.

(5) The establishment of the capability for consistent access to and stewardship of the region between the Moon and Earth is in the national security and commercial interests of the United States.

(6) Commercial development of space, including exploration and other lawful uses, is in the interest of the United States and the international community at large.

(7) Research and access to capabilities to support a national laboratory facility within the United States segment of the ISS in low-Earth orbit are in the national policy interests of the United States, including maintenance and development of an active and healthy stream of research from ground to space in areas that can uniquely benefit from access to this facility.

(8) NASA should develop vehicles to replace the Shuttle orbiter's capabilities for transporting crew and heavy cargo while utilizing the current program's resources, including human capital, capabilities, and infrastructure. Using these resources can ease the transition to a new space transportation system, maintain an essential industrial base, and minimize technology and safety risks.

(9) The United States must remain the leader in aeronautics and aviation. Any erosion of this preeminence is not in the Nation's economic or security interest. NASA should align its aerospace leadership to ensure United States leadership. A national effort is needed to ensure that NASA's aeronautics programs are leading contributors to the Nation's civil and military aviation needs, as well as to its exploration capabilities.

SEC. 3. DEFINITIONS.

In this Act:

(1) ADMINISTRATOR.—The term ''Administrator'' means the Administrator of the National Aeronautics and Space Administration.

(2) ISS.—The term ''ISS'' means the International Space Station.

(3) NASA.—The term ''NASA'' means the National Aeronautics and Space Administration.

(4) SHUTTLE-DERIVED VEHICLE.—The term ''shuttle-derived vehicle'' means any new space transportation vehicle, piloted or unpiloted, that—

(A) is capable of supporting crew or cargo missions; and

(B) uses a major component of NASA's Space Transportation System, such as the solid rocket booster, external tank, engine, and orbiter.

(5) IN-SITU RESOURCE UTILIZATION.—The term ''in-situ resource utilization'' means the technology or systems that can convert indigenous or locally-situated substances into useful materials and products.

TITLE I—AUTHORIZATION OF APPROPRIATIONS

Subtitle A—Authorizations

SEC. 101. FISCAL YEAR 2006.

There are authorized to be appropriated to the National Aeronautics and Space Administration, for fiscal year 2006, $16,556,400,000, as follows:

(1) For science, aeronautics and exploration, $9,661,000,000 for the following programs (including amounts for construction of facilities).

(2) For exploration capabilities, $6,863,000,000, (including amounts for construction of facilities), which shall be used for space operations, and out of which $100,000,000 shall be used for the purposes of section 202 of this Act.

(3) For the Office of Inspector General, $32,400,000.

SEC. 102. FISCAL YEAR 2007.

There are authorized to be appropriated to the National Aeronautics and Space Administration, for fiscal year 2007, $17,052,900,000, as follows:

(1) $10,549,800,000 for science, aeronautics and exploration (including amounts for construction of facilities).

(2) For exploration capabilities, $6,469,600,000, for the following programs (including amounts for construction of facilities), of which $6,469,600,000 shall be for space operations.

(3) For the Office of Inspector General, $33,500,000.

SEC. 103. FISCAL YEAR 2008.

There are authorized to be appropriated to the National Aeronautics and Space Administration, for fiscal year 2008, $17,470,900,000.

SEC. 104. FISCAL YEAR 2009.

There are authorized to be appropriated to the National Aeronautics and Space Administration, for fiscal year 2009, $17,995,000,000.

SEC. 105. FISCAL YEAR 2010.

There are authorized to be appropriated to the National Aeronautics and Space Administration, for fiscal year 2010, $18,534,900,000.

SEC. 106. EVALUATION CRITERIA FOR BUDGET REQUEST.

It is the sense of the Congress that each budget of the United States submitted to the Congress after the date of enactment of this Act should be evaluated for compliance with the findings and priorities established by this Act and the amendments made by this Act.

Subtitle B—General Provisions

SEC. 131. IMPLEMENTATION OF A SCIENCE PROGRAM THAT EXTENDS HUMAN KNOWLEDGE AND UNDERSTANDING OF THE EARTH, SUN, SOLAR SYSTEM, AND THE UNIVERSE.

The Administrator shall—

(1) conduct a rich and vigorous set of science activities aimed at better comprehension of the universe, solar system, and Earth, and ensure that the various areas within NASA's science portfolio are developed and maintained in a balanced and healthy manner, and, as part of this balanced science research program, provide, to the maximum extent feasible, continued support and funding for the Magnetospheric Multiscale Mission, SIM-Planet Quest, and Future Explorers programs, including determining whether these delayed missions and planned missions can be expedited to meet previous schedules, and may place a greater emphasis on science, including the programs described in this paragraph, throughout the fiscal years for which funds are authorized by this Act (and for this purpose, of the funds authorized by section 101(1) of this Act, no less than $5,341,200,000 shall be for science, and of the funds authorized by section 102(1) of this Act, no less than $5,960,300,000 shall be for science);

(2) plan projected Mars exploration activities in the context of planned lunar robotic precursor missions, ensuring the ability to conduct a broad set of scientific investigations and research around and on the Moon's surface;

(3) upon successful completion of the planned return-to-flight schedule of the Space Shuttle, determine the schedule for a Shuttle servicing mission to the Hubble Space Telescope, unless such a mission would compromise astronaut or safety or the integrity of NASA's other missions;

(4) ensure that, in implementing the provisions of this section, appropriate inter-agency and commercial collaboration opportunities are sought and utilized to the maximum feasible extent;

(5) seek opportunities to diversify the flight opportunities for scientific Earth science instruments and seek innovation in the development of instruments that would enable greater flight opportunities;

(6) develop a long term sustainable relationship with the United States commercial remote sensing industry, and, consistent with applicable policies and law, to the maximum practical extent, rely on their services;

(7) in conjunction with United States industry and universities, develop Earth science applications to enhance Federal, State, local, and tribal governments that use government and commercial remote sensing capabilities and other sources of geospatial information to address their needs;

(8) plan, develop, and implement a near-Earth object survey program to detect, track, catalogue, and characterize the physical characteristics of near-Earth asteroids and comets in order to assess the threat of such near-Earth objects in impacting the Earth; and

(9) ensure that, of the amount expended for aeronautics, a significant portion is directed toward the Vehicle System Program, as much of the basic, long-term, high-risk, and innovative research in aeronautical disciplines is performed within that program.

SEC. 132. BIENNIAL REPORTS TO CONGRESS ON SCIENCE PROGRAMS.

(a) IN GENERAL.—Within 180 days after the date of enactment of this Act and every 2 years thereafter, the Administrator shall transmit a report to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Science setting forth in detail—

(1) the findings and actions taken on NASA's assessment of the balance within its science portfolio and any efforts to adjust that balance among the major program areas, including the areas referred to in section 131;

(2) any activities undertaken by the Administration to conform with the Sun-Earth science and applications direction provided in section 131; and

(3) efforts to enhance near-Earth object detection and observation.

(b) EXTERNAL REVIEW FINDINGS.—The Administrator shall include in each report submitted under this section a summary of findings and recommendations from any external reviews of the Administration's science mission priorities and programs.

SEC. 133. STATUS REPORT ON HUBBLE SPACE TELESCOPE SERVICING MISSION.

Within 60 days after the landing of the second Space Shuttle mission for return-to-flight certification, the Administrator shall transmit to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Science a one-time status report on a Hubble Space Telescope servicing mission.

SEC. 134. DEVELOP EXPANDED PERMANENT HUMAN PRESENCE BEYOND LOW-EARTH ORBIT.

(a) IN GENERAL.—As part of the programs authorized under the National Aeronautics and Space Act of 1958 (42 U.S.C. 2451 et seq.), the Administrator shall establish a program to develop a permanently sustained human presence on the Moon, in tandem with an extensive precursor program, to support security, commerce, and scientific pursuits, and as a stepping-stone to future exploration of Mars. The Administrator is further authorized to develop and conduct international collaborations in pursuit of these goals, as appropriate.

(b) REQUIREMENTS.—In carrying out this section, the Administrator shall—

(1) implement an effective exploration technology program that is focused around the key needs to support lunar human and robotic operations;

(2) as part of NASA's annual budget submission, submit to the Congress the detailed mission, schedule, and budget for key lunar mission-enabling technology areas, including areas for possible innovative governmental and commercial activities and partnerships;

(3) as part of NASA's annual budget submission, submit to the Congress a plan for NASA's lunar robotic precursor and technology programs, including current and planned technology investments and scientific research that support the lunar program;

(4) conduct an intensive in-situ resource utilization technology program in order to develop the capability to use space resources to increase independence from Earth, and sustain exploration beyond low-Earth orbit;

(5) conduct a program to assure the health and safety of astronauts during extended space exploration missions which include more effective countermeasures to mitigate deleterious effects of such missions, and the means to provide in-space exploration medical care delivery to crews with little or no real-time support from Earth, relevant issues such as radiation exposure, exercise countermeasures, cardiac health, diagnostic and monitoring devices, and medical imaging;

(6) utilize advanced power and propulsion technologies, including nuclear and electric technologies, to enable or enhance robotic and human exploration missions when feasible; and

(7) develop a robust technology development program to provide surface power for use on the Moon and other locations relevant to NASA space exploration goals which, to the extent feasible, address needs for modular, scalable power sources for a range of applications on the Moon including human and vehicular uses.

SEC. 135. GROUND-BASED ANALOG CAPABILITIES.

(a) IN GENERAL.—The Administrator shall establish a ground-based analog capability in remote United States locations in order to assist in the development of lunar operations, life support, and in-situ resource utilization experience and capabilities.

(b) LOCATIONS.—The Administrator shall select locations for subsection (a) in places that—

(1) are regularly accessible;

(2) have significant temperature extremes and range; and

(3) have access to energy and natural resources (including geothermal, permafrost, volcanic, and other potential resources).

(c) INVOLVEMENT OF LOCAL POPULATIONS; PRIVATE SECTOR PARTNERS.—In carrying out this section, the Administrator shall involve local populations, academia, and industrial partners as much as possible to ensure that ground-based benefits and applications are encouraged and developed.

SEC. 136. SPACE LAUNCH AND TRANSPORTATION TRANSITION, CAPABILITIES, AND DEVELOPMENT.

(a) POST-ORBITER TRANSITION.—The Administrator shall develop an implementation plan for the transition to a new crew exploration vehicle and heavy-lift launch vehicle that uses the personnel, capabilities, assets, and infrastructure of the Space Shuttle to the fullest extent possible and addresses how NASA will accommodate the docking of the crew exploration vehicle to the ISS.

(b) AUTOMATED RENDEZVOUS AND DOCKING.—The Administrator is directed to pursue aggressively automated rendezvous and docking capabilities that can support ISS and other mission requirements and include these activities, progress reports, and plans in the implementation plan.

(c) CONGRESSIONAL SUBMISSION.—Within 120 days after the date of enactment of this Act the Administrator shall submit a copy of the implementation plan to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Science.

SEC 137. LESSONS LEARNED AND BEST PRACTICES.

(a) IN GENERAL.—The Administrator shall provide an implementation plan describing NASA's approach for obtaining, implementing, and sharing lessons learned and best practices for its major programs and projects within 180 days after the date of enactment of this Act. The implementation plan shall be updated and maintained to assure that it is current and consistent with the burgeoning culture of learning and safety that is emerging at NASA.

(b) REQUIRED CONTENT.—The implementation plan shall contain as a minimum the lessons learned and best practices requirements for NASA, the organizations or positions responsible for enforcement of the requirements, the reporting structure, and the objective performance measures indicating the effectiveness of the activity.

(c) INCENTIVES.—The Administrator shall provide incentives to encourage sharing and implementation of lessons learned and best practices by employees, projects, and programs; as well as penalties for programs and projects that are determined not to have demonstrated use of those resources.

SEC. 138. SAFETY MANAGEMENT.

Section 6 of the National Aeronautics and Space Administration Authorization Act, 1968 (42 U.S.C. 2477) is amended—

(1) by inserting ''(a) IN GENERAL.—'' before ''There'';

(2) by striking ''to it'' and inserting ''to it, including evaluating NASA's compliance with the return-to-flight and continue-to-fly recommendations of the Columbia Accident Investigation Board,'';

(3) by inserting ''and the Congress'' after ''advise the Administrator'';

(4) by striking ''and with respect to the adequacy of proposed or existing safety standards and shall'' and inserting ''with respect to the adequacy of proposed or existing safety standards, and with respect to management and culture. The Panel shall also''; and

(5) by adding at the end the following:

''(b) ANNUAL REPORT.—The Panel shall submit an annual report to the Administrator and to the Congress. In the first annual report submitted after the date of enactment of the National Aeronautics and Space Administration Authorization Act of 2005, the Panel shall include an evaluation of NASA's safety management culture.

''(c) SENSE OF THE CONGRESS.—It is the sense of the Congress that the Administrator should—

''(1) ensure that NASA employees can raise safety concerns without fear of reprisal;

''(2) continue to follow the recommendations of the Columbia Accident Investigation Board for safely returning and continuing to fly; and

''(3) continue to inform the Congress from time to time of NASA's progress in meeting those recommendations.''.

SEC. 139. CREATION OF A BUDGET STRUCTURE THAT AIDS EFFECTIVE OVERSIGHT AND MANAGEMENT.

In developing NASA's budget request for inclusion in the Budget of the United States for fiscal year 2007 and thereafter, the Administrator shall—

(1) include line items for—

(A) science, aeronautics, and exploration;

(B) exploration capabilities; and

(C) the Office of the Inspector General;

(2) enumerate separately, within the science, aeronautics, and exploration account, the requests for—

(A) space science;

(B) Earth science; and

(C) aeronautics;

(3) include, within the exploration capabilities account, the requests for—

(A) the Space Shuttle; and

(B) the ISS; and

(4) enumerate separately the specific request for the independent technical authority within the appropriate account.

SEC. 140. EARTH OBSERVING SYSTEM.

(a) IN GENERAL.—Within 6 months after the date of enactment of this Act, the Administrator, in consultation with the Administrator of the National Oceanic and Atmospheric Administration and the Director of the United States Geological Survey, shall submit a plan to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Science to ensure the long-term vitality of the earth observing system at NASA.

(b) PLAN REQUIREMENTS.—The plan shall—

(1) address such issues as—

(A) out-year budgetary projections;

(B) technical requirements for the system; and

(C) integration into the Global Earth Observing System of Systems; and

(2) evaluate—

(A) the need to proceed with any NASA missions that have been delayed or canceled;

(B) plans for transferring needed capabilities from some canceled or de-scoped missions to the National Polar-orbiting Environmental Satellite System;

(C) the technical base for exploratory earth observing systems, including new satellite architectures and instruments that enable global coverage, all-weather, day and night imaging of the Earth's surface features;

(D) the need to strengthen research and analysis programs; and

(E) the need to strengthen the approach to obtaining important climate observations and data records.

(c) EARTH OBSERVING SYSTEM DEFINED.—In this section, the term ''earth observing system'' means the series of satellites, a science component, and a data system for long-term global observations of the land surface, biosphere, solid Earth, atmosphere, and oceans.

SEC. 141. NASA HEALTHCARE PROGRAM.

The Administrator shall develop policies, procedures, and plans necessary for—

(1) the establishment of a lifetime healthcare program for NASA astronauts and their families; and

(2) the study and analysis of the healthcare data obtained in order to understand the longitudinal health effects of space flight on humans better.

SEC. 142. ASSESSMENT OF EXTENSION OF DATA COLLECTION FROM ULYSSES AND VOYAGER SPACECRAFT.

(a) ASSESSMENT.—Not later than 60 days after the date of the enactment of this Act, the Administrator shall carry out an assessment of the costs and benefits of extending, to such date as the Administrator considers appropriate for purposes of the assessment, the date of the termination of data collection from the Ulysses spacecraft and the Voyager spacecraft.

(b) REPORT.—Not later than 30 days after completing the assessment required by subsection (a), the Administrator shall submit a report on the assessment to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Science.

SEC. 143. PROGRAM TO EXPAND DISTANCE LEARNING IN RURAL UNDERSERVED AREAS.

(a) IN GENERAL.—The Administrator shall develop or expand programs to extend science and space educational outreach to rural communities and schools through video conferencing, interpretive exhibits, teacher education, classroom presentations, and student field trips.

(b) PRIORITIES.—In carrying out subsection (a), the Administrator shall give priority to existing programs, including Challenger Learning Centers—

(1) that utilize community-based partnerships in the field;

(2) that build and maintain video conference and exhibit capacity;

(3) that travel directly to rural communities and serve low-income populations; and

(4) with a special emphasis on increasing the number of women and minorities in the science and engineering professions.

SEC. 144. INSTITUTIONS IN NASA'S MINORITY INSTITUTIONS PROGRAM.

The matter appearing under the heading ''SMALL AND DISADVANTAGED BUSINESS'' in title III of the Departments of Veterans Affairs and House and Urban Development, and Independent Agencies Appropriations Act, 1990 (42 U.S.C. 2473b; 103 Stat. 863) is amended by striking ''Historically Black Colleges and Universities and'' and inserting ''Historically Black Colleges and Universities that are part B institutions (as defined in section 322(2) of the Higher Education Act of 1965 (20 U.S.C. 1061(2))), Hispanic-serving institutions (as defined in section 502(a)(5) of that Act (20 U.S.C. 1101a(a)(5)), Tribal Colleges or Universities (as defined in section 316(b)(3) of that Act (20 U.S.C. 1059c(b)(3)), Alaskan Native-serving institutions (as defined in section 317(b)(2) of that Act (20 U.S.C. 1059d)(b)(2)), Native Hawaiian-serving institutions (as defined in section 317(b)(4) of that Act (20 U.S.C. 1059d(b)(4)), and''.

SEC. 145. AVIATION SAFETY PROGRAM.

The Administrator shall make available upon request satellite imagery of remote terrain to the Administrator of the Federal Aviation Administration, or the Director of the Five Star Medallion Program, for aviation safety and aerial photography programs to assist and train pilots in navigating challenging topographical features of such terrain.

SEC. 146. ATMOSPHERIC, GEOPHYSICAL, AND ROCKET RESEARCH AUTHORIZATION.

There are authorized to be appropriated to the Administrator for atmospheric, geophysical, or rocket research at the Poker Flat Research Range and the Kodiak Launch Complex, not more than $1,000,000 for each of fiscal years 2006 through 2010.

SEC. 147. ORBITAL DEBRIS.

The Administrator, in conjunction with the heads of other Federal agencies, shall take steps to develop or acquire technologies that will enable NASA to decrease the risks associated with orbital debris.

SEC. 148. CONTINUATION OF CERTAIN EDUCATIONAL PROGRAMS.

From amounts appropriated to NASA for educational programs, the Administrator shall ensure continuation of the Space Grant Program, the Experimental Program to Stimulate Competitive Research, and the NASA Explorer School to motivate and develop the next generation of explorers.

SEC. 149. ESTABLISHMENT OF THE CHARLES "PETE" CONRAD ASTRONOMY AWARDS PROGRAM.

(a) IN GENERAL.—The Administrator shall establish a program to be known as the Charles ''Pete'' Conrad Astronomy Awards Program.

(b) AWARDS.—The Administrator shall make an annual award under the program of—

(1) $3,000 to the amateur astronomer or group of amateur astronomers who in the preceding calendar year discovered the intrinsically brightest near-Earth asteroid among the near-Earth asteroids that were discovered during that year by amateur astronomers or groups of amateur astronomers; and

(2) $3,000 to the amateur astronomer or group of amateur astronomers who made the greatest contribution to the Minor Planet Center's mission of cataloging near-Earth asteroids during the preceding year.

(c) QUALIFICATION FOR AWARD.—

(1) RECOMMENDATION.—These awards shall be made based on the recommendation of the Minor Planet Center of the Smithsonian Astrophysical Observatory.

(2) LIMITATION.—No individual who is not a citizen or permanent resident of the United States at the time of that individual's discovery or contribution may receive an award under this program.

SEC. 150. GAO ASSESSMENT OF FEASIBILITY OF MOON AND MARS EXPLORATION MISSIONS.

Within 9 months after the date of enactment of this Act, the Comptroller General shall transmit to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Science an assessment of the feasibility of NASA's planning for exploration of the Moon and Mars, giving special consideration to the long-term cost implications of program architecture and schedules. The Comptroller General shall include in this assessment the short- and long-term impact of the exploration program on other NASA program areas, including aeronautics, space science, earth science and NASA's overall research and technology development budget.

SEC. 151. WORKFORCE.

(a) IN GENERAL.—The Administrator shall develop a human capital strategy to ensure that NASA has a workforce of the appropriate size and with the appropriate skills to carry out the programs of NASA, consistent with the policies and plans developed pursuant to this section. The strategy shall ensure that current personnel are utilized, to the maximum extent feasible, in implementing the vision for space exploration and NASA's other programs. The strategy shall cover the period through fiscal year 2011.

(b) CONTENT.—The strategy shall describe, at a minimum—

(1) any categories of employees NASA intends to reduce, the expected size and timing of those reductions, the methods NASA intends to use to make the reductions, and the reasons NASA no longer needs those employees;

(2) any categories of employees NASA intends to increase, the expected size and timing of those increases, the methods NASA intends to use to recruit the additional employees, and the reasons NASA needs those employees;

(3) the steps NASA will use to retain needed employees; and

(4) the budget assumptions of the strategy, which for fiscal years 2006 and 2007 shall be consistent with the authorizations provided in subtitle A, and any expected additional costs or savings from the strategy by fiscal year.

(c) SCHEDULE.—The Administrator shall transmit the strategy developed under this section to the Senate Committee on Commerce, Science, and Transportation and House of Representatives Committee on Science not later than the date on which the President submits the proposed budget for the Federal Government for fiscal year 2007 to the Congress. At least 60 days before transmitting the strategy, NASA shall provide a draft of the strategy to its Federal Employee Unions for a 30-day consultation period after which NASA shall respond in writing to any written concerns provided by the Unions.

(d) LIMITATION.—

(1) IN GENERAL.—NASA may not initiate any buyout offer after the date of enactment of this Act until 60 days after the strategy required by this subsection has been transmitted to the Senate Committee on Commerce, Science, and Transportation and House of Representatives Committee on Science in accordance with subsection (c). NASA may not implement any reduction-in-force or other involuntary separations (except for cause) prior to June 1, 2007, except as provided in paragraph (2).

(2) EXCEPTIONS.—

(A) SPECIFIC BUY-OUTS.—Notwithstanding paragraph (1), NASA may make exceptions can be made for specific buy-outs on a case-by-case basis, if NASA provides information to the Committees that justifies those specific buy-outs, including why the relevant employees could not be utilized to fulfill other NASA missions.

(B) EMERGENCY REDUCTIONS-IN-FORCE.—NASA may also request an exception for an emergency reduction-in-force of management personnel by transmitting to the Committees—

(i) a detailed rationale for the proposed reduction-in-force;

(ii) an explanation of why the proposed reduction-in-force cannot wait until after the workforce strategy has been transmitted to the Committees in accordance with the requirements of this section; and

(iii) an explanation of why the relevant employees could not be utilized to fulfill other NASA missions.

SEC. 152. MAJOR RESEARCH EQUIPMENT AND FACILITIES.

(a) IN GENERAL.—Notwithstanding any other provision of law, the National Science

Foundation may use funds in the major research equipment and facilities construction account for the design and development of projects that—

(1) have been given a very high rating by relevant scientific peer review panels in the relevant discipline;

(2) have substantial cost-sharing with non-Foundation entities; and

(3) have passed a critical design review.

(b) NATIONAL SCIENCE BOARD APPROVAL.—Nothing in subsection (a) shall be construed to eliminate the need for approval by the National Science Board before such equipment and facilities are eligible for acquisition, construction, commissioning, or upgrading.

SEC. 153. DATA ON SPECIFIC FIELDS OF STUDY.

(a) IN GENERAL.—The National Science Foundation shall collect statistically reliable data through the American Community Survey on the field of degree of college-educated individuals.

(b) ADDITIONAL CENSUS QUESTION.—In order to facilitate the implementation of subsection (a), the Secretary of Commerce shall expand the American Community Survey to include a question to elicit information concerning the field of study in which college-educated individuals received their degrees. The Director of the Bureau of the Census shall consult with the Director of the National Science Foundation concerning the wording of the question or questions to be added to the Survey.

Subtitle C—Limitations and Special Authority

SEC. 161. OFFICIAL REPRESENTATIONAL FUND.

Amounts appropriated pursuant to paragraphs (1) and (2) of section 101 may be used, but not to exceed $70,000, for official reception and representation expenses.

SEC. 162. FACILITIES MANAGEMENT.

NASA shall develop a facilities investment plan through fiscal year 2015 that takes into account uniqueness, mission dependency, and other studies required by this Act.

TITLE II—INTERNATIONAL SPACE STATION

SEC. 201. INTERNATIONAL SPACE STATION COMPLETION.

(a) ELEMENTS, CAPABILITIES, AND CONFIGURATION CRITERIA.—The Administrator shall ensure that the ISS will be able to—

(1) fulfill international partner agreements and provide a diverse range of research capacity, including a high rate of human biomedical research protocols, countermeasures, applied bio-technologies, technology and exploration research, and other priority areas;

(2) have an ability to support crew size of at least 6 persons;

(3) support crew exploration vehicle docking and automated docking of cargo vehicles or modules launched by either heavy-lift or commercially-developed launch vehicles; and

(4) be operated at an appropriate risk level.

(b) CONTINGENCY PLAN.—The transportation plan to support ISS shall include contingency options to ensure sufficient logistics and on-orbit capabilities to support any potential hiatus between Space Shuttle availability and follow-on crew and cargo systems, and provide sufficient pre-positioning of spares and other supplies needed to accommodate any such hiatus.

(c) CERTIFICATION.—Within 60 days after the date of enactment of this Act, and before making any change in the ISS assembly sequence in effect on the date of enactment of this Act, the Administrator shall certify in writing to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Science NASA's plan to meet the requirements of subsections (a) and (b).

(d) COST LIMITATION FOR THE ISS.—Within 6 months after the date of enactment of this Act, the Administrator shall submit to the Congress information pertaining to the impact of the Columbia accident and the implementation of full cost accounting on the development costs of the International Space Station. The Administrator shall also identify any statutory changes needed to section 202 of the NASA Authorization Act of 2000 to address those impacts.

SEC. 202. RESEARCH AND SUPPORT CAPABILITIES ON INTERNATIONAL SPACE STATION.

(a) IN GENERAL.—The Administrator shall—

(1) within 60 days after the date of enactment of this Act, provide an assessment of biomedical and life science research planned for implementation aboard the ISS that includes the identification of research which can be performed in ground-based facilities and then, if appropriate, validated in space to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Science;

(2) ensure the capacity to support ground-based research leading to spaceflight of scientific research in a variety of disciplines with potential direct national benefits and applications that can advance significantly from the uniqueness of micro-gravity;

(3) restore and protect such potential ISS research activities as molecular crystal growth, animal research, basic fluid physics, combustion research, cellular biotechnology, low temperature physics, and cellular research at a level which will sustain the existing scientific expertise and research capabilities until such time as additional funding or resources from sources other than NASA can be identified to support these activities within the framework of the National Laboratory provided for in section 203 of this Act;

(4) consider the need for a life sciences centrifuge and any associated holding facilities; and

(5) within 1 year after the date of enactment of this Act, develop a research plan that will demonstrate the process by which NASA will evolve the ISS research portfolio in a manner consistent with the planned growth and evolution of ISS on-orbit and transportation capabilities.

(b) MAINTENANCE OF ON-ORBIT ANALYTICAL CAPABILITIES.—The Administrator shall ensure that on-orbit analytical capabilities to support diagnostic human research, as well as on-orbit characterization of molecular crystal growth, cellular research, and other research products and results are developed and maintained, as an alternative to Earth-based analysis requiring the capability of returning research products to Earth.

(c) ASSESSMENT OF POTENTIAL SCIENTIFIC USES.—The Administrator shall assess further potential possible scientific uses of the ISS for other applications, such as technology development, development of manufacturing processes, Earth observation and characterization, and astronomical observations.

(d) TRANSITION TO PUBLIC-PRIVATE RESEARCH OPERATIONS.—By no later than the date on which the assembly of the ISS is complete (as determined by the Administrator), the Administrator shall initiate steps to transition research operations on the ISS to a greater private–public operating relationship pursuant to section 203 of this Act.

SEC. 203. NATIONAL LABORATORY STATUS FOR INTERNATIONAL SPACE STATION.

(a) IN GENERAL.—In order to accomplish the objectives listed in section 202, the United States segment of the ISS is hereby designated a national laboratory facility. The Administrator, after consultation with the Director of the Office of Science and Technology Policy, shall develop the national laboratory facility to oversee scientific utilization of an ISS national laboratory within the organizational structure of NASA.

(b) NATIONAL LABORATORY FUNCTIONS.—The Administrator shall seek to use the national laboratory to increase the utilization of the ISS by other national and commercial users and to maximize available NASA funding for research through partnerships, cost-sharing agreements, and arrangements with non-NASA entities.

(c) IMPLEMENTATION PLAN.—Within 1 year after the date of enactment of this Act, the Administrator shall provide an implementation plan to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Science for establishment of the ISS national laboratory facility which, at a minimum, shall include—

(1) proposed on-orbit laboratory functions;

(2) proposed ground-based laboratory facilities;

(3) detailed laboratory management structure, concept of operations, and operational feasibility;

(4) detailed plans for integration and conduct of ground and space-based research operations;

(5) description of funding and workforce resource requirements necessary to establish and operate the laboratory;

(6) plans for accommodation of existing international partner research obligations and commitments; and

(7) detailed outline of actions and timeline necessary to implement and initiate operations of the laboratory.

(d) U.S. SEGMENT DEFINED.—In this section the term ''United States Segment of the ISS'' means those elements of the ISS manufactured—

(1) by the United States; or

(2) for the United States by other nations in exchange for funds or launch services.

SEC. 204. COMMERCIAL SUPPORT OF INTERNATIONAL SPACE STATION OPERATIONS AND UTILIZATION.

The Administrator shall purchase commercial services for support of the ISS for cargo and other needs, and for enhancement of the capabilities of the ISS, to the maximum extent possible, in accordance with Federal procurement law.

SEC. 205. USE OF THE INTERNATIONAL SPACE STATION AND ANNUAL REPORT.

(a) POLICY.—It is the policy of the United States—

(1) to ensure diverse and growing utilization of benefits from the ISS; and

(2) to increase commercial operations in low-Earth orbit and beyond that are supported by national and commercial space transportation capabilities.

(b) USE OF INTERNATIONAL SPACE STATION.—The Administrator shall conduct broadly focused scientific and exploration research and development activities using the ISS in a manner consistent with the provisions of this title, and advance the Nation's exploration of the Moon and beyond, using the ISS as a test-bed and outpost for operations, engineering, and scientific research.

(c) REPORTS.—No later than March 31 of each year the Administrator shall submit a report to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Science on the use of the ISS for these purposes, with implementation milestones and associated results.

TITLE III—NATIONAL SPACE TRANSPORTATION POLICY

SEC. 301. UNITED STATES HUMAN-RATED LAUNCH CAPACITY ASSESSMENT.

Notwithstanding any other provision of law, the Administrator shall, within 60 days after the date of enactment of this Act, provide to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Science, a full description of the transportation requirements needed to support the space launch and transportation transition implementation plan required by section 136 of this Act, as well as for the ISS, including—

(1) the manner in which the capabilities of any proposed human-rated crew and launch vehicles meet the requirements of the implementation plan under section 136 of this Act;

(2) a retention plan of skilled personnel from the legacy Shuttle program which will sustain the level of safety for that program through the final flight and transition plan that will ensure that any NASA programs can utilize the human capital resources of the Shuttle program, to the maximum extent practicable;

(3) the implications for and impact on the Nation's aerospace industrial base;

(4) the manner in which the proposed vehicles contribute to a national mixed fleet launch and flight capacity;

(5) the nature and timing of the transition from the Space Shuttle to the workforce, the proposed vehicles, and any related infrastructure;

(6) support for ISS crew transportation, ISS utilization, and lunar exploration architecture;

(7) for any human rated vehicle, a crew escape system, as well as substantial protection against orbital debris strikes that offers a high level of safety;

(8) development risk areas;

(9) the schedule and cost;

(10) the relationship between crew and cargo capabilities; and

(11) the ability to reduce risk through the use of currently qualified hardware.

SEC. 302. SPACE SHUTTLE TRANSITION.

(a) POLICY STATEMENT.—It is the policy of the United States to possess the capability for assured human access to space. The Administrator shall act to ensure that the United States retains that capacity on a continuous basis. The Administrator shall conduct the transition from the Space Shuttle orbiter to a replacement capacity in a manner that efficiently uses the personnel, capabilities, and infrastructure that are currently available to the extent feasible.

(b) PROGRESS REPORT.—Within 180 days after the date of enactment of this Act and annually thereafter, the Administrator shall report to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Science on the progress and the estimated amount of time before the next generation human-rated NASA spacecraft will demonstrate crewed, orbital spaceflight.

(c) POLICY COMPLIANCE REPORT.—If, 1 year before the final flight of the Space Shuttle orbiter, the United States has not demonstrated a replacement human space flight system, the Administrator shall certify that the United States cannot uphold the policy outlined in subsection (a) and shall provide a report to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Science describing—

(1) United States strategic risks associated with the hiatus or gap;

(2) the estimated length of time during which the United States will not have independent human access to space;

(3) what steps will be taken to shorten that length of time; and

(4) what other means will be used to allow human access to space during that time.

(d) TRANSITION PLAN REPORT.—After providing the information required by section 301 to the Committees, the Administrator shall transmit a report to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Science containing a detailed and comprehensive Space Shuttle transition plan that includes any necessary recertification, including requirements, assumptions, and milestones, in order to utilize the Space Shuttle orbiter beyond calendar year 2010.

(e) CONTRACT TERMINATIONS; VENDOR REPLACEMENTS.—The Administrator may not terminate any contracts nor replace any vendors associated with the Space Shuttle until the Administrator transmits the report required by subsection (b) to the Committees.

SEC. 303. COMMERCIAL LAUNCH VEHICLES.

It is the sense of Congress that the Administrator should use current and emerging commercial launch vehicles to fulfill appropriate mission needs, including the support of low-Earth orbit and lunar exploration operations.

SEC. 304. SECONDARY PAYLOAD CAPABILITY.

(a) IN GENERAL.—In order to help develop a cadre of experienced engineers and to provide more routine and affordable access to space, the Administrator shall provide the capabilities to support secondary payloads on United States launch vehicles, including free flyers, for satellites or scientific payloads weighing less than 500 kilograms.

(b) FEASIBILITY STUDY.—The Administrator shall initiate a feasibility study for establishing a National Free Flyer Launch Center as a means of consolidating and integrating secondary launch capabilities, launch opportunities, and payloads.

(c) ASSESSMENT.—The feasibility study required in this section shall include an assessment of the potential utilization of existing launch and launch support facilities and capabilities in the states of Montana and New Mexico and their respective contiguous states, and the state of Alaska, and shall include an assessment of the feasibility of integrating the potential National Free Flyer Launch Center within the operations and facilities of an existing non-profit organization such as the Inland Northwest Space Alliance in Missoula, Montana, or similar entity.

SEC. 305. POWER AND PROPULSION REPORTING.

The Administrator shall, within 180 days after the date of enactment of this Act, provide to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Science, a full description of plans to develop and utilize nuclear power and nuclear propulsion capabilities to achieve agency goals and any requirements in this Act, and address how those plans meet the intent of the Vision for Space Exploration and the President's Space Transportation Policy Directive.

SEC. 306. UTILIZATION OF NASA FIELD CENTERS AND WORKFORCE.

(a) IN GENERAL.—In budgeting for and carrying out elements of this title, the Administrator shall make the most effective use of existing research, development, testing, and space exploration expertise and facilities resident within NASA field centers.

(b) RESPONSIBILITIES OF FIELD CENTERS.—The Administrator shall take appropriate action to balance responsibilities between the field centers for leading the development of systems relevant to the Vision for Space Exploration, including systems identified in this title or any architecture studies performed by NASA.

TITLE IV—ENABLING COMMERCIAL ACTIVITY

SEC. 401. COMMERCIALIZATION PLAN.

(a) IN GENERAL.—The Administrator, in consultation with the Associate Administrator for Space Transportation of the Federal Aviation Administration, the Director of the Office of Space Commercialization of the Department of Commerce, and any other relevant agencies, shall develop a commercialization plan to support the human missions to the Moon and Mars, to support Low-Earth Orbit activities and Earth science mission and applications, and to transfer science research and technology to society. The plan shall identify opportunities for the private sector to participate in the future missions and activities, including opportunities for partnership between NASA and the private sector in the development of technologies and services, shall emphasize the utilization by NASA of advancements made by the private sector in space launch and orbital hardware, and shall include opportunities for innovative collaborations between NASA and the private sector under existing authorities of NASA for reimbursable and non-reimbursable agreements under the National Aeronautics and Space Act of 1958 (42 U.S.C. 2451 et seq.).

(b) REPORT.—Within 180 days after the date of enactment of this Act, the Administrator shall submit a copy of the plan to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Science.

SEC. 402. COMMERCIAL TECHNOLOGY TRANSFER PROGRAM.

(a) IN GENERAL.—The Administrator shall execute a commercial technology transfer program with the goal of facilitating the exchange services, products, and intellectual property between NASA and the private sector. This program shall be maintained in a manner that provides measurable benefits for the agency, the domestic economy, and research communities.

(b) PROGRAM STRUCTURE.—In carrying out the program described in paragraph (a), the Administrator shall maintain the funding and program structure of NASA's existing technology transfer and commercialization organizations through the end of fiscal year 2006.

SEC. 403. AUTHORITY FOR COMPETITIVE PRIZE PROGRAM TO ENCOURAGE DEVELOPMENT OF ADVANCED SPACE AND AERONAUTICAL TECHNOLOGIES.

Title III of the National Aeronautics and Space Act of 1958 (42 U.S.C. 2451 et seq.) is amended by adding at the end the following:

"SEC. 316. PROGRAM ON COMPETITIVE AWARD OF PRIZES TO ENCOURAGE DEVELOPMENT OF ADVANCED SPACE AND AERONAUTICAL TECHNOLOGIES.

''(a) PROGRAM AUTHORIZED.—

''(1) IN GENERAL.—The Administrator may carry out a program to award prizes to stimulate innovation in basic and applied research, technology development, and prototype demonstration that have the potential for application to the performance of the space and aeronautical activities of the Administration.

''(2) USE OF PRIZE AUTHORITY.—In carrying out the program, the Administrator shall seek to develop and support technologies and areas identified in section 134 of this Act or other areas that the Administrator determines to be providing impetus to NASA's overall exploration and science architecture and plans, such as private efforts to detect near Earth objects and, where practicable, utilize the prize winner's technologies in fulfilling NASA's missions. The Administrator shall widely advertise any competitions conducted under the program and must include advertising to research universities.

''(3) COORDINATION.—The program shall be implemented in compliance with section 138 of the National Aeronautics and Space Administration Authorization Act of 2005.

''(b) PROGRAM REQUIREMENTS.—

''(1) COMPETITIVE PROCESS.—Recipients of prizes under the program under this section shall be selected through one or more competitions conducted by the Administrator.

''(2) ADVERTISING.—The Administrator shall widely advertise any competitions conducted under the program.

''(c) REGISTRATION; ASSUMPTION OF RISK.—

''(1) REGISTRATION.—Each potential recipient of a prize in a competition under the program under this section shall register for the competition.

''(2) ASSUMPTION OF RISK.—In registering for a competition under paragraph (1), a potential recipient of a prize shall assume any and all risks, and waive claims against the United States Government and its related entities, for any injury, death, damage, or loss of property, revenue, or profits, whether direct, indirect, or consequential, arising from participation in the competition, whether such injury, death, damage, or loss arises through negligence or otherwise, except in the case of willful misconduct.

''(3) RELATED ENTITY DEFINED.—In this subsection, the term 'related entity' includes a contractor or subcontractor at any tier, a supplier, user, customer, cooperating party, grantee, investigator, or detailee.

''(d) LIMITATIONS.—

''(1) TOTAL AMOUNT.—The total amount of cash prizes available for award in competitions under the program under this section in any fiscal year may not exceed $50,000,000.

''(2) APPROVAL REQUIRED FOR LARGE PRIZES.—No competition under the program may result in the award of more than $1,000,000 in cash prizes without the approval of the Administrator or a designee of the Administrator.

''(e) RELATIONSHIP TO OTHER AUTHORITY.—The Administrator may utilize the authority in this section in conjunction with or in addition to the utilization of any other authority of the Administrator to acquire, support, or stimulate basic and applied research, technology development, or prototype demonstration projects.

''(f) AVAILABILITY OF FUNDS.—Funds appropriated for the program authorized by this section shall remain available until expended.''.

SEC. 404. COMMERCIAL GOODS AND SERVICES.

It is the sense of the Congress that NASA should purchase commercially available space goods and services to the fullest extent feasible in support of the human missions beyond Earth and should encourage commercial use and development of space to the greatest extent practicable.

TITLE V—AERONAUTICS RESEARCH AND DEVELOPMENT

SEC. 501. GOVERNMENTAL INTEREST IN AERONAUTICS.

Congress reaffirms the national commitment to aeronautics research made in the National Aeronautics and Space Act of 1958. Aeronautical research and development remains a core mission of NASA. NASA is the lead agency for civil aeronautics research. NASA shall conduct a robust program of aeronautics research that includes fundamental basic research as well as research in the fields of vehicle systems and of safety and security.

SEC. 502. NATIONAL POLICY FOR AERONAUTICS RESEARCH AND DEVELOPMENT.

(a) IN GENERAL.—The President shall develop through NASA and other relevant entities, a national aeronautics policy to guide the aeronautics programs of the United States through the year 2020. The development of this policy shall utilize external studies that have been conducted on the state of United States aeronautics and aviation research and have suggested policies to ensure continued competitiveness.

(b) CONTENT.—At a minimum the national aeronautics policy shall describe—

(1) national goals for aeronautics research;

(2) the priority areas of research for aeronautics through fiscal year 2011;

(3) the basis of which and the process by which priorities for ensuing fiscal years will be selected; and

(4) respective roles and responsibilities of various Federal agencies in aeronautics research.

(c) NASA INPUT.—In providing input to and executing the National Aeronautics Policy, the Administrator, shall consider the following issues:

(1) The established governmental interest in conducting research and development programs for improvement of the usefulness, performance, speed, safety, and efficiency of aeronautical and vehicles, as described in section 102(c)(2) of the National Aeronautics and Space Act of 1958 and reaffirmed in section 501.

(2) The established governmental interest in conducting research and development programs that contribute to preservation of the role of the United States as a global leader in aeronautical technologies and in the application thereof in section 102(c)(5) of the National Aeronautics and Space Act of 1958 and reaffirmed in section 501.

(3) The appropriate balance between long-term, high risk research and shorter, more incremental research, and the expected impact on the United States economy and public good.

(4) The appropriate balance between in-house research and procurement with industry and academia.

(5) The extent to which NASA should address military and commercial aviation needs.

(6) How NASA will coordinate its aeronautics program with other Federal agencies.

(7) Opportunities for partnerships with the private sector.

(d) SCHEDULE.—

(1) No later than 1 year after the date of enactment of this Act, the President shall submit the national aeronautics policy to the Appropriations Committees of the House of Representatives and the Senate, the House Committee on Science, and the Senate Committee on Commerce, Science, and Transportation.

(2) No later than 60 days after the transmittal of the policy, the Administrator shall submit NASA's response to the policy, to the Appropriations Committees of the House of Representatives and the Senate, the House Committee on Science, and the Senate Committee on Commerce, Science and Transportation.

SEC. 503. HIGH PRIORITY AERONAUTICS RESEARCH AND DEVELOPMENT PROGRAMS.

(a) IN GENERAL.—In its role as lead agency for civil aeronautics research and development, NASA shall develop programs and projects in accordance with the National Aeronautics Policy described in section 502, as well program areas listed in subsection (b). These programs must be driven by scientific merit.

(b) RESEARCH AND DEVELOPMENT.—In executing an aeronautics research and development program, the Administrator shall, at a minimum, within the budgetary and programmatic resources provided, conduct programs in the following areas:

(1) FUNDAMENTAL RESEARCH.—The Administrator shall establish a program of long-term fundamental research in aeronautical sciences and technologies that is not tied to specific development projects. The Administrator shall set aside no less than 5 percent of the aeronautics budget for this program. As part of this program, the Administrator is encouraged to make merit-reviewed grants to institutions of higher learning, including such institutions located in states that participate in the Experimental Program to Stimulate Competitive Research.

(2) VEHICLE SYSTEMS RESEARCH AND TECHNOLOGY.—In order to maintain United States economic competitiveness and protect the environment, the Administrator shall establish programs in each of the following technology areas:

(A) ENVIRONMENTAL AIRCRAFT RESEARCH AND DEVELOPMENT.—The Administrator shall establish an initiative with the objective of developing and demonstrating in a relevant environment, technologies to enable the following commercial aircraft performance characteristics:

(i) NOISE.—Noise levels on takeoff and on airport approach and landing that do not exceed ambient noise levels in the absence of flight operations in the vicinity of airports from which such commercial aircraft would normally operate;

(ii) ENERGY CONSUMPTION.—Twenty-five percent reduction in the energy required for medium to long range flights, compared to aircraft in commercial service as of the date of enactment of this Act; and

(iii) EMISSIONS.—Nitrogen oxides on takeoff and landing that are significantly reduced, without adversely affecting hydrocarbons and smoke, relative to aircraft in commercial service as of the date of enactment of this Act.

(B) SUPERSONIC TRANSPORT RESEARCH AND DEVELOPMENT.—The Administrator shall establish an initiative with the objective of developing and demonstrating in a relevant environment within airframe and propulsion technologies to enable efficient, economical overland flight of supersonic civil transport aircraft with no significant impact on the environment.

(C) ROTORCRAFT AND OTHER RUNWAY-INDEPENDENT AIR VEHICLES.—The Administrator shall establish a rotorcraft and other runway-independent air vehicles initiative with the objective of developing and demonstrating improved safety, noise, and environmental impact in a relevant environment.

(D) HYPERSONICS RESEARCH.—The Administrator shall establish a hypersonics research program whose objective shall be to explore the science and technology of hypersonic flight using air-breathing propulsion concepts, through a mix of theoretical work, basic and applied research, and development of flight research demonstration vehicles. Emphasis in the program shall be given to advancing and demonstrating turbine engine technology in the transition to hypersonic range Mach 3 to Mach 5.

(E) REVOLUTIONARY AERONAUTICAL CONCEPTS.—The Administrator shall establish a research program which covers a unique range of subsonic, fixed wing vehicles and propulsion concepts. This research is intended to push technology barriers beyond current subsonic technology. Propulsion concepts include advanced materials, morphing engines, hybrid engines, and fuel cells.

(F) MORE ELECTRIC AIRCRAFT INITIATIVE.—The Administrator shall establish a program for innovative and focused research and development such as fuel cell technologies.

(3) AIRSPACE SYSTEMS RESEARCH.—The Airspace Systems Research program shall pursue research and development to enable revolutionary improvements to and modernization of the National Airspace system, as well

as to enable the introduction of new systems for vehicles that can take advantage of an improved, modern air transportation system. In pursuing research and development in this area, the Administrator shall align the projects of the Airspace Systems Research program so that they directly support the objectives of the Joint Planning and Development Office's Next Generation air Transportation System Integrated Plan.

(4) AVIATION SAFETY AND SECURITY RESEARCH.—The Aviation Safety and Security Research program shall pursue research and development activities that directly address the safety and security needs of the National Airspace System and the aircraft that fly in it.

SEC. 504. TEST FACILITIES.

(a) Prior to completion of the National Aeronautics Policy described in section 502 and transmittal of such policy pursuant to subsection (d) of that section, the Administrator may not close, suspend, or terminate contracts for the operation of major aeronautical test facilities, including wind tunnels, unless the Administrator—

(1) certifies in writing that such closure will not have an adverse impact on NASA's ability to execute the National Policy and achieve the goals described in that Policy; and

(2) provides notification to and receives concurrence from the Appropriations Committees of the House of Representatives and the Senate, the House Committee on Science, and the Senate Committee on Commerce, Science and Transportation 60 days in advance of such action.

SEC. 505. MISCELLANEOUS PROVISIONS.

(a) WORKFORCE DEVELOPMENT.—The Administrator shall encourage the development of a skilled and diverse aeronautics research workforce using appropriate available tools such as grants, scholarships for service, and fellowships.

(b) ALIGNMENT OF PROGRAMS.—Notwithstanding any other provision of this title, the Administrator shall align NASA's aeronautics program with priorities established by the Joint Planning and Development Office and by the National Aeronautics Policy described in section 502 of this Act.

TITLE VI—MISCELLANEOUS ADMINISTRATIVE IMPROVEMENTS

SEC. 601. EXTENSION OF INDEMNIFICATION AUTHORITY.

Section 309 of the National Aeronautics and Space Act of 1958 (42 U.S.C. 2458c) is amended by striking ''December 31, 2002'' and inserting ''December 31, 2007'', and by striking ''September 30, 2005'' and inserting ''December 31, 2009''.

SEC. 602. INTELLECTUAL PROPERTY PROVISIONS.

Section 305 of the National Aeronautics and Space Act of 1958 (42 U.S.C. 2457) is amended by inserting after subsection (f) the following:

''(g) ASSIGNMENT OF PATENT RIGHTS, ETC.—

''(1) IN GENERAL.—Under agreements entered into pursuant to paragraph (5) or (6) of section 203(c) of this Act (42 U.S.C. 2473(c)(5) or (6)), the Administrator may—

''(A) grant or agree to grant in advance to a participating party, patent licenses or assignments, or options thereto, in any invention made in whole or in part by an Administration employee under the agreement; or

''(B) subject to section 209 of title 35, grant a license to an invention which is Federally owned, for which a patent application was filed before the signing of the agreement, and directly within the scope of the work under the agreement, for reasonable compensation when appropriate.

''(2) EXCLUSIVITY.—The Administrator shall ensure, through such agreement, that the participating party has the option to choose an exclusive license for a pre-negotiated field of use for any such invention under the agreement or, if there is more than 1 participating party, that the participating parties are offered the option to hold licensing rights that collectively encompass the rights that would be held under such an exclusive license by one party.

''(3) CONDITIONS.—In consideration for the Government's contribution under the agreement, grants under this subsection shall be subject to the following explicit conditions:

''(A) A nonexclusive, nontransferable, irrevocable, paid-up license from the participating party to the Administration to practice the invention or have the invention practiced throughout the world by or on behalf of the Government. In the exercise of such license, the Government shall not publicly disclose trade secrets or commercial or financial information that is privileged or confidential within the meaning of section 552 (b)(4) of title 5, United States Code, or which would be considered as such if it had been obtained from a non-Federal party.

''(B) If the Administration assigns title or grants an exclusive license to such an invention, the Government shall retain the right—

''(i) to require the participating party to grant to a responsible applicant a nonexclusive, partially exclusive, or exclusive license to use the invention in the applicant's licensed field of use, on terms that are reasonable under the circumstances; or

''(ii) if the participating party fails to grant such a license, to grant the license itself.

''(C) The Government may exercise its right retained under subparagraph (B) only in exceptional circumstances and only if the Government determines that—

''(i) the action is necessary to meet health or safety needs that are not reasonably satisfied by the participating party;

''(ii) the action is necessary to meet requirements for public use specified by Federal regulations, and such requirements are not reasonably satisfied by the participating party; or

''(iii) the action is necessary to comply with an agreement containing provisions described in section 12(c)(4)(B) of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3710a(c)(4)(B)).

''(4) APPEAL AND REVIEW OF DETERMINATION.—A determination under paragraph (3)(C) is subject to administrative appeal and judicial review under section 203(b) of title 35, United States Code.''.

SEC. 603. RETROCESSION OF JURISDICTION.

Title III of the National Aeronautics and Space Act of 1958, as amended by section 602 of this Act, is further amended by adding at the end the following:

''SEC. 317. RETROCESSION OF JURISDICTION.

''Notwithstanding any other provision of law, the Administrator may, whenever the Administrator considers it desirable, relinquish to a State all or part of the legislative jurisdiction of the United States over lands or interests under the Administrator's control in that State. Relinquishment of legislative jurisdiction under this section may be accomplished (1) by filing with the Governor of the State concerned a notice of relinquishment to take effect upon acceptance thereof, or (2) as the laws of the State may otherwise provide.''.

SEC. 604. RECOVERY AND DISPOSITION AUTHORITY.

Title III of the National Aeronautics and Space Act of 1958, as amended by section 603 of this Act, is further amended by adding at the end the following:

''SEC. 318. RECOVERY AND DISPOSITION AUTHORITY.

''(a) IN GENERAL.—

''(1) CONTROL OF REMAINS.—Subject to paragraph (2), when there is an accident or mishap resulting in the death of a crewmember of a NASA human space flight vehicle, the Administrator may take control over the remains of the crewmember and order autopsies and other scientific or medical tests.

''(2) TREATMENT.—Each crewmember shall provide the Administrator with his or her preferences regarding the treatment accorded to his or her remains and the Administrator shall, to the extent possible, respect those stated preferences.

''(b) DEFINITIONS.—In this section:

''(1) CREWMEMBER.—The term 'crewmember' means an astronaut or other person assigned to a NASA human space flight vehicle.

''(2) NASA HUMAN SPACE FLIGHT VEHICLE.—The term 'NASA human space flight vehicle' means a space vehicle, as defined in section 308(f)(1), that—

''(A) is intended to transport 1 or more persons;

''(B) designed to operate in outer space; and

''(C) is either owned by NASA, or owned by a NASA contractor or cooperating party and operated as part of a NASA mission or a joint mission with NASA.''.

SEC. 605. REQUIREMENT FOR INDEPENDENT COST ANALYSIS.

Section 301 of the National Aeronautics and Space Administration Authorization Act of 2000 (42 U.S.C. 2459g) amended—

(1) by striking ''Phase B'' in subsection (a) and inserting ''implementation'';

(2) by striking ''Chief Financial Officer'' each place it appears in subsection (a) and inserting ''Administrator'';

(3) by inserting ''and consider'' in subsection (a) after ''shall conduct''; and

(4) by striking subsection (b) and inserting the following:

''(b) IMPLEMENTATION DEFINED.—In this section, the term 'implementation' means all activity in the life cycle of a program or project after preliminary design, independent assessment of the preliminary design, and approval to proceed into implementation, including critical design, development, certification, launch, operations, disposal of assets, and, for technology programs, development, testing, analysis and communication of the results to the customers.''.

SEC. 606. ELECTRONIC ACCESS TO BUSINESS OPPORTUNITIES.

Title III of the National Aeronautics and Space Act of 1958, as amended by section 604 of this Act, is further amended by adding at the end the following:

''SEC. 319. ELECTRONIC ACCESS TO BUSINESS OPPORTUNITIES.

''(a) IN GENERAL.—The Administrator may implement a pilot program providing for reduction in the waiting period between publication of notice of a proposed contract action and release of the solicitation for procurements conducted by the National Aeronautics and Space Administration.

''(b) APPLICABILITY.—The program implemented under subsection (a) shall apply to non-commercial acquisitions—

''(1) with a total value in excess of $100,000 but not more than $5,000,000, including options;

''(2) that do not involve bundling of contract requirements as defined in section 3(o) of the Small Business Act (15 U.S.C. 632(o)); and

''(3) for which a notice is required by section 8(e) of the Small Business Act (15 U.S.C. 637(e)) and section 18(a) of the Office of Federal Procurement Policy Act (41 U.S.C. 416(a)).

''(c) NOTICE.—

''(1) Notice of acquisitions subject to the program authorized by this section shall be made accessible through the single Government-wide point of entry designated in the Federal Acquisition Regulation, consistent with section 30(c)(4) of the Office of Federal Procurement Policy Act (41 U.S.C. 426(c)(4)).

''(2) Providing access to notice in accordance with paragraph (1) satisfies the publication requirements of section 8(e) of the Small Business Act (15 U.S.C. 637(e)) and section 18(a) of the Office of Federal Procurement Policy Act (41 U.S.C. 416(a)).

''(d) SOLICITATION.—Solicitations subject to the program authorized by this section shall be made accessible through the Government-wide point of entry, consistent with requirements set forth in the Federal Acquisition Regulation, except for adjustments to the wait periods as provided in subsection (e).

''(e) WAIT PERIOD.—

''(1) Whenever a notice required by section 8(e)(1)(A) of the Small Business Act (15 U.S.C. 637(e)(1)(A)) and section 18(a) of the Office of Federal Procurement Policy Act (41 U.S.C. 416(a)) is made accessible in accordance with subsection (c) of this section, the wait period set forth in section 8(e)(3)(A) of the Small Business Act (15 U.S.C. 637(e)(3)(A)) and section 18(a)(3)(A) of the Office of Federal Procurement Policy Act (41 U.S.C. 416(a)(3)(A)), shall be reduced by 5 days. If the solicitation applying to that notice is accessible electronically in accordance with subsection (d) simultaneously with issuance of the notice, the wait period set forth in section 8(e)(3)(A) of the Small Business Act (15 U.S.C. 637(e)(3)(A)) and section 18(a)(3)(A) of the Office of Federal Procurement Policy Act (41 U.S.C. 416(a)(3)(A)) shall not apply and the period specified in section 8(e)(3)(B) of the Small Business Act and section 18(a)(3)(B) of the Office of Federal Procurement Policy Act for submission of bids or proposals shall begin to run from the date the solicitation is electronically accessible.

''(2) When a notice and solicitation are made accessible simultaneously and the wait period is waived pursuant to paragraph (1), the deadline for the submission of bids or proposals shall be not less than 5 days greater than the minimum deadline set forth in section 8(e)(3)(B) of the Small Business Act (15 U.S.C. 637(e)(3)(B)) and section 18(a)(3)(B) of the Office of Federal Procurement Policy Act (41 U.S.C. 416(a)(3)(B)).

''(f) IMPLEMENTATION.—

''(1) Nothing in this section shall be construed as modifying regulatory requirements set forth in the Federal Acquisition Regulation, except with respect to—

''(A) the applicable wait period between publication of notice of a proposed contract action and release of the solicitation; and

''(B) the deadline for submission of bids or proposals for procurements conducted in accordance with the terms of this pilot program.

''(2) This section shall not apply to the extent the President determines it is inconsistent with any international agreement to which the United States is a party.

''(g) STUDY.—Within 18 months after the effective date of the program, NASA, in coordination with the Small Business Administration, the General Services Administration, and the Office of Management and Budget, shall evaluate the impact of the pilot program and submit to Congress a report that—

''(1) sets forth in detail the results of the test, including the impact on competition and small business participation; and

''(2) addresses whether the pilot program should be made permanent, continued as a test program, or allowed to expire.

''(h) REGULATIONS.—The Administrator shall publish proposed revisions to the NASA Federal Acquisition Regulation Supplement necessary to implement this section in the Federal Register not later than 120 days after the date of enactment of the National Aeronautics and Space Administration Authorization Act of 2005. The Administrator shall—

''(1) make the proposed regulations available for public comment for a period of not less than 60 days; and

''(2) publish final regulations in the Federal Register not later than 240 days after the date of enactment of that Act.

''(i) EFFECTIVE DATE.—

''(1) IN GENERAL.—The pilot program authorized by this section shall take effect on the date specified in the final regulations promulgated pursuant to subsection (h)(2).

''(2) LIMITATION.—The date so specified shall be no less than 30 days after the date on which the final regulation is published.

''(j) EXPIRATION OF AUTHORITY.—The authority to conduct the pilot program under subsection (a) and to award contracts under such program shall expire 2 years after the effective date established in the final regulations published in the Federal Register under subsection (h)(2).''.

SEC. 607. REPORTS ELIMINATION.

(a) REPEALS.—The following provisions of law are repealed:

(1) Section 201 of the National Aeronautics and Space Administration Authorization Act of 2000 (42 U.S.C. 2451 note).

(2) Section 304(d) of the Federal Aviation Administration Research, Engineering, and Development Authorization Act of 1992 (49 U.S.C. 47508 note).

(b) AMENDMENTS.—

(1) Section 315 of the National Aeronautics and Space Administration Act of 1958 (42 U.S.C. 2459j) is amended by striking subsection (a) and redesignating subsections (b) through (f) as subsections (a) through (e).

(2) Section 315(a) of the National Aeronautics and Space Administration Authorization Act, Fiscal Year 1993 (42 U.S.C. 2487a(c)) is amended by striking subsection (c) and redesignating subsection (d) as subsection (c).

(3) Section 323 of the National Aeronautics and Space Administration Authorization Act of 2000 is amended by striking subsection (a).

SEC. 608. SMALL BUSINESS CONTRACTING.

(a) PLAN.—In consultation with the Small Business Administration, the Administrator shall develop a plan to maximize the number and amount of contracts awarded to small business concerns (within the meaning given that term in section 3 of the Small Business Act (15 U.S.C. 632) and to meet established contracting goals for such concerns.

(b) PRIORITY.—The Administrator shall establish, as a priority, meeting the contracting goals developed in conjunction with the Small Business Administration to maximize the amount of prime contracts, as measured in dollars, awarded in each fiscal year by NASA to small business concerns (within the meaning given that term in section 3 of the Small Business Act (15 U.S.C. 632)).

SEC. 609. GOVERNMENT ACCOUNTABILITY OFFICE REVIEW AND REPORT.

(a) REVIEW.—The Comptroller General of the United States shall conduct a review of NASA's policies, processes, and procedures in the planning and management of applications research and development implemented in calendar years 2001 to 2005 within the Applied Sciences Directorate and former Earth Science Applications Program. A formal and transparent peer review process that instills public and stakeholder confidence in NASA's sponsored applications research and development programs is important and the process by which this program defines requirements, scopes programs, selects peer reviewers, manages the research competition, and selects proposals is of concern. The review shall include—

(1) the program planning and analysis process used to formulate applied science research and development requirements, priorities, and solicitation schedules, including changes to the process within the period under review, and the effects of such planning on the quality and clarity of applied sciences research announcements;

(2) the peer review process including—

(A) membership selection, determination of qualifications and use of NASA and non-NASA reviewers;

(B) management of conflicts of interest, including reviewers funded by the program with a significant consulting or contractual relationship with NASA, and individuals who both review proposals and participate in the submission of proposals under the same solicitation announcement;

(C) compensation of non-NASA proposal reviewers;

(3) the process for assigning or allocating applied research to NASA researchers and to non-NASA researchers; and

(4) alternative models for NASA planning and management of applied science and applications research, including an evaluation of—

(A) the National Institutes of Health's intramural and extramural research program structure, peer review process, management of conflicts of interests, compensation of reviewers, and the effects of compensation on reviewer efficiency and quality;

(B) the Department of Agriculture's research programs and structure, peer review process, management of conflicts of interest, compensation of reviewers, and the effects of compensation on reviewer efficiency and quality; and

(C) the ''best practices'' of both in the planning, selection, and management of applied sciences research and development.

(b) REPORT.—Not later than 1 year after the date of the enactment of this Act, the Comptroller General shall submit a report to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Science describing the results of the review conducted under subsection (a), including recommendations for NASA best practices.

(c) IMPLEMENTATION.—Not later than 90 days after receipt of the report, NASA shall provide the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Science a plan describing the implementation of those recommendations.

MOTION OFFERED BY MR. BOEHLERT

Mr. BOEHLERT. Mr. Speaker, I offer a motion.

The Clerk read as follows:

Mr. BOEHLERT of New York moves to strike all after the enacting clause of S. 1281 and insert in lieu thereof the text of H.R. 3070 as passed by the House, as follows:

S. 1281

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) SHORT TITLE.—This Act may be cited as the ''National Aeronautics and Space Administration Authorization Act of 2005''.

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

SEC. 2. FINDINGS.

The Congress finds the following:

(1) On January 14, 2004, the President unveiled the Vision for Space Exploration to guide United States policy on human space exploration.

(2) The President's vision of returning humans to the Moon and working toward a sustainable human presence there and then venturing further into the solar system provides a sustainable rationale for the United States human space flight program.

(3) As we enter the Second Space Age, the National Aeronautics and Space Administration should continue to support robust programs in space science, aeronautics, and earth science as it moves forward with plans to send Americans to the Moon, Mars, and worlds beyond.

(4) The National Aeronautics and Space Administration's programs can advance the frontiers of science, expanding understanding of our planet and of the universe, and contribute to American prosperity.

(5) The United States should honor its international commitments to the International Space Station program.

(6) The United States must remain the leader in aeronautics and aviation. Any erosion of this preeminence is not in the Nation's economic or security interests. Past Federal investments in aeronautics research and development have benefited the economy and national security of the United States and improved the quality of life of its citizens.

(7) Long-term progress in aeronautics and space requires continued Federal investment in fundamental research, test facilities, and maintenance of a skilled civil service workforce at NASA's Centers.

(8) An important part of NASA's mission is education and outreach.

SEC. 3. DEFINITIONS.

In this Act:

(1) ADMINISTRATOR.—The term ''Administrator'' means the Administrator of the National Aeronautics and Space Administration.

(2) ISS.—The term ''ISS'' means the International Space Station.

(3) NASA.—The term ''NASA'' means the National Aeronautics and Space Administration.

TITLE I—GENERAL PRINCIPLES AND REPORTS

SEC. 101. RESPONSIBILITIES, POLICIES, AND PLANS.

(a) GENERAL RESPONSIBILITIES.—

(1) PROGRAMS.—The Administrator shall ensure that NASA carries out a balanced set of programs that shall include, at a minimum, programs in—

(A) human space flight, in accordance with subsection (b);

(B) aeronautics research and development; and

(C) scientific research, which shall include, at a minimum—

(i) robotic missions to study planets, and to deepen understanding of astronomy, astrophysics, and other areas of science that can be productively studied from space;

(ii) earth science research and research on the Sun-Earth connection through the development and operation of research satellites and other means;

(iii) support of university research in space science, earth science and microgravity science.

(iv) research on microgravity, including research that is not directly related to human exploration.

(2) CONSULTATION AND COORDINATION.—In carrying out the programs of NASA, the Administrator shall—

(A) consult and coordinate to the extent appropriate with other relevant Federal agencies, including through the National Science and Technology Council;

(B) work closely with the private sector, including by—

(i) encouraging the work of entrepreneurs who are seeking to develop new means to launch satellites, crew, or cargo;

(ii) contracting with the private sector for crew and cargo services to the extent practicable; and

(iii) using commercially available products (including software) and services to the extent practicable to support all NASA activities; and

(C) involve other nations to the extent appropriate.

(b) VISION FOR SPACE EXPLORATION.—The Administrator shall manage human space flight programs to strive to achieve the following goals:

(1) Returning Americans to the Moon no later than 2020.

(2) Launching the Crew Exploration Vehicle as close to 2010 as possible.

(3) Increasing knowledge of the impacts of long duration stays in space on the human body using the most appropriate facilities available.

(4) Enabling humans to land on and return from Mars and other destinations on a timetable that is technically and fiscally possible.

(c) AERONAUTICS.—

(1) IN GENERAL.—The President of the United States, through the Administrator, and in consultation with other Federal agencies, shall develop a national aeronautics policy to guide the aeronautics programs of NASA through 2020.

(2) CONTENT.—At a minimum, the national aeronautics policy shall describe for NASA—

(A) the priority areas of research for aeronautics through fiscal year 2011;

(B) the basis on which and the process by which priorities for ensuing fiscal years will be selected;

(C) the facilities and personnel needed to carry out the aeronautics program through fiscal year 2011; and

(D) the budget assumptions on which the national aeronautics policy is based, which for fiscal years 2006 and 2007 shall be the authorized level for aeronautics provided in title II of this Act.

(3) CONSIDERATIONS.—In developing the national aeronautics policy, the President shall consider the following issues, which shall be discussed in the transmittal under paragraph (5):

(A) The extent to which NASA should focus on long-term, high-risk research or more incremental research, and the expected impact on the United States aircraft and airline industries of that decision.

(B) The extent to which NASA should address military and commercial needs.

(C) How NASA will coordinate its aeronautics program with other Federal agencies.

(D) The extent to which NASA will fund university research, and the expected impact of that funding on the supply of United States workers for the aeronautics industry.

(E) The extent to which the priority areas of research listed pursuant to paragraph (2)(A) should include the activities authorized by title IV of this Act, the discussion of which shall include a priority ranking of all of the activities authorized in title IV and an explanation for that ranking.

(4) CONSULTATION.—In the development of the national aeronautics policy, the Administrator shall consult widely with academic and industry experts and with other Federal agencies. The Administrator may enter into an arrangement with the National Academy of Sciences to help develop the national aeronautics policy.

(5) SCHEDULE.—The Administrator shall transmit the national aeronautics policy to the Committee on Appropriations and the Committee on Science of the House of Representatives, and to the Committee on Appropriations and the Committee on Commerce, Science, and Transportation of the Senate, not later than the date on which the President submits the proposed budget for the Federal Government for fiscal year 2007 to the Congress. The Administrator shall make available to those committees any study done by a nongovernmental entity that was used in the development of the national aeronautics policy.

(d) SCIENCE.—

(1) IN GENERAL.—The Administrator shall develop a policy to guide the science programs of NASA through 2016.

(2) CONTENT.—At a minimum, the policy shall describe—

(A) the missions NASA will initiate, design, develop, launch, or operate in space science and earth science through fiscal year 2016, including launch dates;

(B) a priority ranking of all of the missions listed under subparagraph (A), and the rationale for the ranking;

(C) the budget assumptions on which the policy is based, which for fiscal years 2006 and 2007 shall be consistent with the authorizations provided in title II of this Act; and

(D) the facilities and personnel needed to carry out the policy through fiscal year 2016.

(3) CONSIDERATIONS.—In developing the science policy under this subsection, the Administrator shall consider the following issues, which shall be discussed in the transmittal under paragraph (6):

(A) What the most important scientific questions in space science and earth science are.

(B) The relationship between NASA's space and earth science activities and those of other Federal agencies.

(4) CONSULTATION.—In developing the policy under this subsection, the Administrator shall draw on decadal surveys and other reports in planetary science, astronomy, solar and space physics, earth science, and any other relevant fields developed by the National Academy of Sciences. The Administrator shall also consult widely with academic and industry experts and with other Federal agencies.

(5) HUBBLE SPACE TELESCOPE.—The policy developed under this subsection shall address plans for a human mission to repair the Hubble Space Telescope consistent with section 302 of this Act.

(6) SCHEDULE.—The Administrator shall transmit the policy developed under this subsection to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate not later than the date on which the President submits the proposed budget for the Federal Government for fiscal year 2007 to the Congress. The Administrator shall make available to those committees any study done by a nongovernmental entity that was used in the development of the policy.

(e) FACILITIES.—

(1) IN GENERAL.—The Administrator shall develop a plan for managing NASA's facilities through fiscal year 2015. The plan shall be consistent with the policies and plans developed pursuant to this section.

(2) CONTENT.—At a minimum, the plan shall describe—

(A) any new facilities NASA intends to acquire, whether through construction, purchase, or lease, and the expected dates for doing so;

(B) any facilities NASA intends to significantly modify, and the expected dates for doing so;

(C) any facilities NASA intends to close, and the expected dates for doing so;

(D) any transaction NASA intends to conduct to sell, lease, or otherwise transfer the ownership of a facility, and the expected dates for doing so;

(E) how each of the actions described in subparagraphs (A), (B), (C), and (D) will enhance the ability of NASA to carry out its programs;

(F) the expected costs or savings expected from each of the actions described in subparagraphs (A), (B), (C), and (D);

(G) the priority order of the actions described in subparagraphs (A), (B), (C), and (D);

(H) the budget assumptions of the plan, which for fiscal years 2006 and 2007 shall be consistent with the authorizations provided in title II of this Act; and

(I) how facilities were evaluated in developing the plan.

(3) SCHEDULE.—The Administrator shall transmit the plan developed under this subsection to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate not later than the date on which the President submits the proposed budget for the Federal Government for fiscal year 2008 to the Congress.

(f) WORKFORCE.—

(1) IN GENERAL.—The Administrator shall develop a human capital strategy to ensure that NASA has a workforce of the appropriate size and with the appropriate skills to carry out the programs of NASA, consistent with the policies and plans developed pursuant to this section. The strategy shall cover the period through fiscal year 2011.

(2) CONTENT.—The strategy shall describe, at a minimum—

(A) any categories of employees NASA intends to reduce, the expected size and timing of those reductions, the methods NASA intends to use to make the reductions, and the reasons NASA no longer needs those employees;

(B) any categories of employees NASA intends to increase, the expected size and timing of those increases, the methods NASA intends to use to recruit the additional employees, and the reasons NASA needs those employees;

(C) the steps NASA will use to retain needed employees; and

(D) the budget assumptions of the strategy, which for fiscal years 2006 and 2007 shall be consistent with the authorizations provided in title II of this Act, and any expected additional costs or savings from the strategy by fiscal year.

(3) SCHEDULE.—The Administrator shall transmit the strategy developed under this subsection to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate not later than the date on which the President submits the proposed budget for the Federal Government for fiscal year 2007 to the Congress. At least 60 days before transmitting the strategy, NASA shall provide a draft of the strategy to its Federal Employee Unions for a 30-day consultation period after which NASA shall respond in writing to any written concerns provided by the Unions.

(4) LIMITATION.—NASA may not initiate any buyout offer until 60 days after the strategy required by this subsection has been transmitted to the Congress in accordance with paragraph (3). NASA may not implement any Reduction in Force or other involuntary separations (except for cause) prior to February 16, 2007.

(g) CENTER MANAGEMENT.—

(1) IN GENERAL.—The Administrator shall conduct a study to determine whether any of NASA's centers should be operated by or with the private sector by converting a center to a Federally Funded Research and Development Center or through any other mechanism.

(2) CONTENT.—The study shall, at a minimum—

(A) make a recommendation for the operation of each center and provide reasons for that recommendation; and

(B) describe the advantages and disadvantages of each mode of operation considered in the study.

(3) CONSIDERATIONS.—In conducting the study, the Administrator shall take into consideration the experiences of other relevant Federal agencies in operating laboratories and centers and any reports that have reviewed the mode of operation of those laboratories and centers, as well as any reports that have reviewed NASA's centers.

(4) SCHEDULE.—The Administrator shall transmit the study conducted under this subsection to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate not later than May 31, 2006.

(h) BUDGETS.—The proposed budget for NASA submitted by the President for each fiscal year shall be accompanied by documents showing—

(1) the budget for each element of the human space flight program;

(2) the budget for aeronautics;

(3) the budget for space science;

(4) the budget for earth science;

(5) the budget for microgravity science;

(6) the budget for education;

(7) the budget for technology transfer programs;

(8) the budget for the Integrated Financial Management Program, by individual element;

(9) the budget for the Independent Technical Authority, both total and by center;

(10) the budget for public relations, by program;

(11) the comparable figures for at least the 2 previous fiscal years for each item in the proposed budget;

(12) the amount of unobligated funds and unexpended funds, by appropriations account—

(A) that remained at the end of the fiscal year prior to the fiscal year in which the budget is being presented that were carried over into the fiscal year in which the budget is being presented;

(B) that are estimated will remain at the end of the fiscal year in which the budget is being presented that are proposed to be carried over into the fiscal year for which the budget is being presented; and

(C) that are estimated will remain at the end of the fiscal year for which the budget is being presented; and

(13) the budget for safety, by program.

(i) GENERAL AND ADMINISTRATIVE EXPENSES.—NASA shall make available, upon request from the Committee on Science of the House of Representatives or the Committee on Commerce, Science, and Transportation of the Senate, information on Corporate and Center General and Administrative Costs and Service Pool costs, including—

(1) the total amount of funds being allocated for those purposes for any fiscal year for which the President has submitted an annual budget request to Congress;

(2) the amount of funds being allocated for those purposes for each center, for headquarters, and for each directorate; and

(3) the major activities included in each cost category.

(j) NASA TEST FACILITIES.—

(1) REVIEW.—The Director of the Office of Science and Technology Policy shall commission an independent review of the Nation's long-term strategic needs for test facilities and shall submit the review to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate. The review shall include an evaluation of the facility needs described pursuant to subsection (c)(2)(C).

(2) LIMITATION.—The Administrator shall not close or mothball any aeronautical test facilities identified in the 2003 independent assessment by the RAND Corporation, entitled ''Wind Tunnel and Propulsion Test Facilities: An Assessment of NASA's Capabilities to Serve National Needs'' as being part of the minimum set of those facilities necessary to retain and manage to serve national needs, as well as any other non-aeronautical NASA test facilities that were in use as of January 1, 2004, until the review conducted under paragraph (1) has been transmitted to the Congress.

SEC. 102. REPORTS.

(a) IMMEDIATE ISSUES.—Not later than September 30, 2005, the Administrator shall transmit to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a report on each of the following items:

(1) The research agenda for the ISS and its proposed final configuration.

(2) The number of flights the Space Shuttle will make before its retirement, the purpose of those flights, and the expected date of the final flight.

(3) A description of the means, other than the Space Shuttle, that may be used to ferry crew and cargo to and from the ISS.

(4) A plan for the operation of the ISS in the event that the Iran Nonproliferation Act of 2000 is not amended.

(5) A description of the launch vehicle for the Crew Exploration Vehicle.

(6) A description of any heavy lift vehicle NASA intends to develop, the intended uses of that vehicle, and whether the decision to develop that vehicle has undergone an interagency review.

(7) A description of the intended purpose of lunar missions and the architecture for those missions.

(8) The program goals for Project Prometheus.

(9) A plan for managing the cost increase for the James Webb Space Telescope.

(b) CREW EXPLORATION VEHICLE.—The Administrator shall not enter into a development contract for the Crew Exploration Vehicle until at least 30 days after the Administrator has transmitted to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a report describing—

(1) the expected cost of the Crew Exploration Vehicle through fiscal year 2020, based on the specifications for that development contract;

(2) the expected budgets for each fiscal year through fiscal year 2020 for human space flight, aeronautics, space science, and earth science—

(A) first assuming inflationary growth for the budget of NASA as a whole and including costs for the Crew Exploration Vehicle as projected under paragraph (1); and

(B) then assuming inflationary growth for the budget of NASA as a whole and including at least two cost estimates for the Crew Exploration Vehicle that are higher than those projected under paragraph (1), based on NASA's past experience with cost increases for similar programs, along with a description of the reasons for selecting the cost estimates used for the calculations under this subparagraph and the probability that the cost of the Crew Exploration Vehicle will reach those estimated amounts; and

(3) the extent to which the Crew Exploration Vehicle will allow for the escape of the crew in the event of an emergency.

(c) SPACE COMMUNICATIONS STUDY.—

(1) STUDY.—The Administrator shall develop a plan for updating NASA's space communications architecture for both low-Earth orbital operations and deep space exploration so that it is capable of meeting NASA's needs over the next 20 years. The plan shall also include life-cycle cost estimates, milestones, estimated performance capabilities, and 5-year funding profiles. The plan shall also include an estimate of the amounts of any reimbursements NASA is likely to receive from other Federal agencies during the expected life of the upgrades described in the plan. The plan shall include a description of the following:

(A) Projected Deep Space Network requirements for the next decade, including those in support of human space exploration missions.

(B) Upgrades needed to support Deep Space Network requirements.

(C) Cost estimates for the maintenance of existing Deep Space Network capabilities.

(D) Cost estimates and schedules for the upgrades described in subparagraph (B).

(2) CONSULTATIONS.—The Administrator shall consult with other relevant Federal agencies in developing the plan under this subsection.

(3) REPORT.—The Administrator shall transmit the plan under this subsection to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate not later than February 17, 2007.

(d) PUBLIC RELATIONS.—Not later than December 31, 2005, the Administrator shall transmit a plan to the Committee on Appropriations and the Committee on Science of the House of Representatives, and to the Committee on Appropriations and the Committee on Commerce, Science, and Transportation of the Senate, describing the activities that will be undertaken as part of the national awareness campaign required by the report of the Committee on Appropriations of the House of Representatives accompanying the Science, State, Justice, Commerce, and Related Agencies Appropriations Act, 2006, and the expected cost of those activities. NASA may undertake activities as part of the national awareness campaign prior to the transmittal of the plan required by this subsection, but not until 15 days after notifying the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate of any activity. The plan required by this subsection shall include the estimated costs of any activities undertaken pursuant to notice under the preceding sentence.

(e) JOINT DARK ENERGY MISSION.—The Administrator and the Director of the Department of Energy Office of Science shall jointly transmit to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate, not later than the date on which the President submits the proposed budget for the Federal Government for fiscal year 2007, a report on plans for a Joint Dark Energy Mission. The report shall include the amount of funds each agency intends to expend on the Joint Dark Energy Mission for each of the fiscal years 2007 through 2011, and any specific milestones for the development and launch of the Mission.

(f) SHUTTLE EMPLOYEE TRANSITION.—The Administrator shall consult with other appropriate Federal agencies and with NASA contractors and employees to develop a transition plan for Federal and contractor personnel engaged in the Space Shuttle program. The plan shall include actions to assist Federal and contractor personnel to take advantage of training, retraining, job placement, and relocation programs, and any other actions that NASA will take to assist the employees. The plan shall also describe how the Administrator will ensure that NASA and its contractors will have an appropriate complement of employees to allow for the safest possible use of the Space Shuttle through its final flight. The Administrator shall transmit the plan to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate not later than February 1, 2006.

(g) OFFICE OF SCIENCE AND TECHNOLOGY POLICY.—

(1) STUDY.—The Director of the Office of Science and Technology Policy shall conduct a study to determine—

(A) if any research and development programs of NASA are unnecessarily duplicating aspects of programs of other Federal agencies; and

(B) if any research and development programs of NASA are neglecting any topics of national interest that are related to the mission of NASA.

(2) REPORT.—Not later than March 1, 2006, the Director of the Office of Science and Technology Policy shall transmit to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a report that—

(A) describes the results of the study under paragraph (1);

(B) lists the research and development programs of Federal agencies other than NASA that were reviewed as part of the study, which shall include any program supporting research and development in an area related to the programs of NASA, and the most recent budget figures for those programs of other agencies;

(C) recommends any changes to the research and development programs of NASA that should be made to eliminate unnecessary duplication or address topics of national interest; and

(D) describes mechanisms the Office of Science and Technology Policy will use to ensure adequate coordination between NASA and Federal agencies that operate related programs.

(h) OFFICE OF SMALL AND DISADVANTAGED BUSINESS UTILIZATION.—The Administrator shall transmit to the Committee on Science and the Committee on Small Business of the House of Representatives and the Committee on Commerce, Science, and Transportation and the Committee on Small Business and Entrepreneurship of the Senate a quarterly report on the NASA Office of Small and Disadvantaged Business Utilization, which shall include a description of the outreach activities of the Office and the impact of such activities on the participation of small businesses, including small businesses owned by women and minorities, in NASA contracts.

SEC. 103. BASELINES AND COST CONTROLS.

(a) CONDITIONS FOR DEVELOPMENT.—

(1) IN GENERAL.—NASA shall not enter into a contract for the development phase of a major program unless the Administrator determines that—

(A) the technical, cost, and schedule risks of the program are clearly identified and the program has developed a plan to manage those risks; and

(B) the program complies with all relevant policies, regulations, and directives of NASA.

(2) REPORT.—The Administrator shall transmit a report describing the basis for the determination required under paragraph (1) to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate at least 30 days before entering into a contract for development under a major program.

(3) NONDELEGATION.—The Administrator may not delegate the determination requirement under this subsection, except in cases in which the Administrator has a conflict of interest.

(b) MAJOR PROGRAM ANNUAL REPORTS.—

(1) REQUIREMENT.—Not later than February 15 of each year following the date of enactment of this Act, the Administrator shall transmit to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a report on each major program for which NASA proposes to expend funds in the subsequent fiscal year. Reports under this section shall be known as Major Program Annual Reports.

(2) BASELINE REPORT.—The first Major Program Annual Report for each major program shall include a Baseline Report that shall, at a minimum, include—

(A) the purposes of the program and key technical characteristics necessary to fulfill those purposes;

(B) an estimate of the life-cycle cost for the program, with a detailed breakout of the development cost, program reserves, and an estimate of the annual costs until the development is completed;

(C) the schedule for the development, including key program milestones;

(D) the plan for mitigating technical, schedule, and cost risks prepared in accordance with subsection (a)(1)(A); and

(E) the name of the person responsible for making notifications under subsection (c), who shall be an individual whose primary responsibility is overseeing the program.

(3) INFORMATION UPDATES.—For major programs with respect to which a Baseline Report has been previously submitted, each subsequent Major Program Annual Report shall describe any changes to the information that had been provided in the Baseline Report, and the reasons for those changes.

(c) NOTIFICATION.—

(1) REQUIREMENT.—The individual identified under subsection (b)(2)(D) shall immediately notify the Administrator any time that individual has reasonable cause to believe that, for the major program for which he or she is responsible—

(A) the development cost of the program is likely to exceed the estimate provided in the Baseline Report of the program by 15 percent or more; or

(B) a milestone of the program is likely to be delayed by 6 months or more from the date provided for it in the Baseline Report of the program.

(2) REASONS.—Not later than 7 days after the notification required under paragraph (1), the individual identified under subsection (b)(2)(D) shall transmit to the Administrator a written notification explaining the reasons for the change in the cost or milestone of the program for which notification was provided under paragraph (1).

(3) NOTIFICATION OF CONGRESS.—Not later than 5 days after the Administrator receives a written notification under paragraph (2), the Administrator shall transmit the notification to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate.

(d) FIFTEEN PERCENT THRESHOLD.—Not later than 30 days after receiving a written notification under subsection (c)(2), the Administrator shall determine whether the development cost of the program is likely to exceed the estimate provided in the Baseline Report of the program by 15 percent or more, or whether a milestone is likely to be delayed by 6 months or more. If the determination is affirmative, the Administrator shall—

(1) transmit to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate, not later than 14 days after making the determination, a report that includes—

(A) a description of the increase in cost or delay in schedule and a detailed explanation for the increase or delay;

(B) a description of actions taken or proposed to be taken in response to the cost increase or delay; and

(C) a description of any impacts the cost increase or schedule delay will have on any other program within NASA; and

(2) if the Administrator intends to continue with the program, promptly initiate an analysis of the program, which shall include, at a minimum—

(A) the projected cost and schedule for completing the program if current requirements of the program are not modified;

(B) the projected cost and the schedule for completing the program after instituting the actions described under paragraph (1)(B); and

(C) a description of, and the projected cost and schedule for, a broad range of alternatives to the program.

NASA shall complete an analysis initiated under paragraph (2) not later than 6 months after the Administrator makes a determination under this subsection. The Administrator shall transmit the analysis to the Committee on Science of the House of Representatives and Committee on Commerce, Science, and Transportation of the Senate not later than 30 days after its completion.

(e) THIRTY PERCENT THRESHOLD.—If the Administrator determines under subsection (d) that the development cost of a program will exceed the estimate provided in the Baseline Report of the program by more than the lower of 30 percent or $1,000,000,000, then, beginning 18 months after the date the Administrator transmits a report under subsection (d)(1), the Administrator shall not expend any additional funds on the program, other than termination costs, unless the Congress has subsequently authorized continuation of the program by law. An appropriation for the program enacted subsequent to a report being transmitted shall be considered an authorization for purposes of this subsection. If the program is continued, the Administrator shall submit a new Baseline Report for the program no later than 90 days after the date of enactment of the Act under which Congress has authorized continuation of the program.

(f) DEFINITIONS.—For the purposes of this section—

(1) the term ''development'' means the phase of a program following the formulation phase and beginning with the approval to proceed to implementation, as defined in NASA's Procedural Requirements 7120.5c, dated March 22, 2005;

(2) the term ''development cost'' means the total of all costs, including construction of facilities and civil servant costs, from the period beginning with the approval to proceed to implementation through the achievement of operational readiness, without regard to funding source or management control, for the life of the program;

(3) the term ''life-cycle cost'' means the total of the direct, indirect, recurring, and nonrecurring costs, including the construction of facilities and civil servant costs, and other related expenses incurred or estimated to be incurred in the design, development, verification, production, operation, maintenance, support, and retirement of a program over its planned lifespan, without regard to funding source or management control; and

(4) the term ''major program'' means an activity approved to proceed to implementation that has an estimated life-cycle cost of more than $150,000,000.

SEC. 104. PRIZE AUTHORITY.

The National Aeronautics and Space Act of 1958 (42 U.S.C. 2451, et seq.) is amended by inserting after section 313 the following new section:

''PRIZE AUTHORITY

''SEC. 314. (a) IN GENERAL.—The Administration may carry out a program to competitively award cash prizes to stimulate innovation in basic and applied research, technology development, and prototype demonstration that have the potential for application to the performance of the space and aeronautical activities of the Administration. The Administration may carry out a

program to award prizes only in conformity with this section.

''(b) TOPICS.—In selecting topics for prize competitions, the Administrator shall consult widely both within and outside the Federal Government, and may empanel advisory committees.

''(c) ADVERTISING.—The Administrator shall widely advertise prize competitions to encourage participation.

''(d) REQUIREMENTS AND REGISTRATION.—For each prize competition, the Administrator shall publish a notice in the Federal Register announcing the subject of the competition, the rules for being eligible to participate in the competition, the amount of the prize, and the basis on which a winner will be selected.

''(e) ELIGIBILITY.—To be eligible to win a prize under this section, an individual or entity—

''(1) shall have registered to participate in the competition pursuant to any rules promulgated by the Administrator under subsection (d);

''(2) shall have complied with all the requirements under this section;

''(3) in the case of a private entity, shall be incorporated in and maintain a primary place of business in the United States, and in the case of an individual, whether participating singly or in a group, shall be a citizen or permanent resident of the United States; and

''(4) shall not be a Federal entity or Federal employee acting within the scope of their employment.

''(f) LIABILITY.—(1) Registered participants must agree to assume any and all risks and waive claims against the United States Government and its related entities, except in the case of willful misconduct, for any injury, death, damage, or loss of property, revenue, or profits, whether direct, indirect, or consequential, arising from their participation in a competition, whether such injury, death, damage, or loss arises through negligence or otherwise. For the purposes of this paragraph, the term 'related entity' means a contractor or subcontractor at any tier, and a supplier, user, customer, cooperating party, grantee, investigator, or detailee.

''(2) Participants must obtain liability insurance or demonstrate financial responsibility in amounts determined by the Administrator, from claims by—

''(A) a third party for death, bodily injury, or property damage, or loss resulting from an activity carried out in connection with participation in a competition, with the Federal Government named as an additional insured under the registered participant's insurance policy and registered participants agreeing to indemnify the Federal Government against third party claims for damages arising from or related to competition activities; and

''(B) the United States Government for damage or loss to Government property resulting from such an activity.

''(g) JUDGES.—For each competition, the Administration, either directly or through a contract under subsection (h), shall assemble a panel of qualified judges to select the winner or winners of the prize competition on the basis described pursuant to subsection (d). Judges for each competition shall include individuals from outside the Administration, including from the private sector. A judge may not—

''(1) have personal or financial interests in, or be an employee, officer, director, or agent of any entity that is a registered participant in a competition; or

''(2) have a familial or financial relationship with an individual who is a registered participant.

''(h) ADMINISTERING THE COMPETITION.—The Administrator may enter into an agreement with a private, nonprofit entity to administer the prize competition, subject to the provisions of this section.

''(i) FUNDING.—(1) The Administrator may accept funds from other Federal agencies and from the private sector for cash prizes under this section. The Administrator may not give any special consideration to any private sector entity in return for a donation.

''(2) Notwithstanding any other provision of law, funds appropriated for prize awards under this section shall remain available until expended, and may be transferred, reprogrammed, or expended for other purposes only after the expiration of 10 fiscal years after the fiscal year for which the funds were originally appropriated. No provision in this section permits obligation or payment of funds in violation of the Anti-Deficiency Act (31 U.S.C. 1341).

''(3) No prize may be announced under subsection (d) until all the funds needed to pay out the announced amount of the prize have been appropriated or committed in writing by a private source. The Administrator may increase the amount of a prize after an initial announcement is made under subsection (d) if—

(A) notice of the increase is provided in the same manner as the initial notice of the prize; and

(B) the funds needed to pay out the announced amount of the increase have been appropriated or committed in writing by a private source.

''(4) No prize competition under this section may offer a prize in an amount greater than $10,000,000 unless 30 days have elapsed after written notice has been provided to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate.

''(j) USE OF NASA NAME AND INSIGNIA.—A registered participant in a competition under this section may use the Administration's name, initials, or insignia only after prior review and written approval by the Administration.

''(k) COMPLIANCE WITH EXISTING LAW.—The Federal Government shall not, by virtue of offering or providing a prize under this section, be responsible for compliance by registered participants in a prize competition with Federal law, including licensing, export control, and nonproliferation laws, and related regulations.''.

SEC. 105. FOREIGN LAUNCH VEHICLES.

(a) ACCORD WITH SPACE TRANSPORTATION POLICY.—NASA shall not launch a mission on a foreign launch vehicle except in accordance with the Space Transportation Policy announced by the President on December 21, 2004.

(b) INTERAGENCY COORDINATION.—NASA shall not launch a mission on a foreign launch vehicle unless NASA commenced the interagency coordination required by the Space Transportation Policy announced by the President on December 21, 2004, at least 90 days before entering into a development contract for the mission.

(c) APPLICATION.—This section shall not apply to any mission for which development has begun prior to the date of enactment of this Act, including the James Webb Space Telescope.

SEC. 106. SAFETY MANAGEMENT.

Section 6 of the National Aeronautics and Space Administration Authorization Act, 1968 (42 U.S.C. 2477) is amended—

(1) by inserting ''(a) IN GENERAL.—'' before ''There is hereby'';

(2) by striking ''plans referred to it'' and inserting ''plans referred to it, including evaluating the National Aeronautics and Space Administration's compliance with the return-to-flight and continue-to-fly recommendations of the Columbia Accident Investigation Board,'';

(3) by inserting ''and the Congress'' after ''advise the Administrator'';

(4) by striking ''and with respect to the adequacy of proposed or existing safety standards and shall'' and inserting '', with respect to the adequacy of proposed or existing safety standards, and with respect to management and culture. The Panel shall also''; and

(5) by adding at the end the following:

''(b) ANNUAL REPORT.—The Panel shall submit an annual report to the Administrator and to the Congress. In the first annual report submitted after the date of enactment of the National Aeronautics and Space Administration Authorization Act of 2005, the Panel shall include an evaluation of the Administration's safety management culture. Each annual report shall include an evaluation of the Administration's compliance with the recommendations of the Columbia Accident Investigation Board.''.

SEC. 107. LESSONS LEARNED AND BEST PRACTICES.

(a) IN GENERAL.—The Administrator shall transmit to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate an implementation plan describing NASA's approach for obtaining, implementing, and sharing lessons learned and best practices for its major programs and projects not later than 180 days after the date of enactment of this Act. The implementation plan shall be updated and maintained to ensure that it is current and consistent with the burgeoning culture of learning and safety that is emerging at NASA.

(b) REQUIRED CONTENT.—The implementation plan shall contain at a minimum the lessons learned and best practices requirements for NASA, the organizations or positions responsible for enforcement of the requirements, the reporting structure, and the objective performance measures indicating the effectiveness of the activity.

(c) INCENTIVES.—The Administrator shall provide incentives to encourage sharing and implementation of lessons learned and best practices by employees, projects, and programs, as well as penalties for programs and projects that are determined not to have demonstrated use of those resources.

SEC. 108. COMMERCIALIZATION PLAN.

(a) IN GENERAL.—The Administrator, in consultation with other relevant agencies, shall develop a commercialization plan to support the human missions to the Moon and Mars, to support Low-Earth Orbit activities and Earth science missions and applications, and to transfer science research and technology to society. The plan shall identify opportunities for the private sector to participate in the future missions and activities, including opportunities for partnership between NASA and the private sector in conducting research and the development of technologies and services. The plan shall include provisions for developing and funding sustained university and industry partnerships to conduct commercial research and technology development, to proactively translate results of space research to Earth benefits, to advance United States economic interests, and to support the vision for exploration.

(b) REPORT.—Not later than 180 days after the date of enactment of this Act, the Administrator shall submit a copy of the plan to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate.

SEC. 109. STUDY ON THE FEASIBILITY OF USE OF GROUND SOURCE HEAT PUMPS.

(a) IN GENERAL.—The Administrator shall conduct a feasibility study on the use of ground source heat pumps in future NASA facilities or substantial renovation of existing NASA facilities involving the installation of heating, ventilating, and air conditioning systems. Not later than 1 year after the date of enactment of this Act, the Administrator shall transmit the study to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate.

(b) CONTENTS.—The study shall examine—

(1) the life-cycle costs, including maintenance costs, of the operation of such heat pumps compared to generally available heating, cooling, and water heating equipment;

(2) barriers to installation, such as availability and suitability of terrain; and

(3) such other issues as the Administrator considers appropriate.

(c) DEFINITION.—In this section, the term ''ground source heat pump'' means an electric-powered system that uses the Earth's relatively constant temperature to provide heating, cooling, or hot water.

SEC. 110. SPACE SHUTTLE RETURN TO FLIGHT.

It is the sense of Congress that, in keeping with the President's Vision for Space Exploration, the Space Shuttle should return to flight as soon as the Administrator determines that a flight can be accomplished with an acceptable level of safety.

SEC. 111. WHISTLEBLOWER PROTECTION.

Not later than 1 year after the date of enactment of this Act, the Administrator shall transmit to the Committee on Science of the House of Representatives and the Committee on Commerce, Science and Transportation of the Senate a plan describing steps to be taken by NASA to protect the employment status of NASA employees who raise or have raised concerns about a potentially catastrophic risk to health or safety.

TITLE II—AUTHORIZATION OF APPROPRIATIONS

SEC. 201. STRUCTURE OF BUDGETARY ACCOUNTS.

Section 313 of the National Aeronautics and Space Act of 1958 (42 U.S.C. 2459f) is amended to read as follows:

''SEC. 313. BUDGETARY ACCOUNTS.

''Appropriations for the Administration for fiscal year 2007 and thereafter shall be made in four accounts, 'Science, Aeronautics, and Education', 'Exploration Systems', 'Space Operations', and an account for amounts appropriated for the necessary expenses of the Office of the Inspector General. Appropriations shall remain available for two fiscal years, unless otherwise specified in law. Each account shall include the planned full costs of Administration activities.''.

SEC. 202. FISCAL YEAR 2006.

There are authorized to be appropriated to NASA for fiscal year 2006 $16,965,650,000, as follows:

(1) For Science, Aeronautics and Education (including amounts for construction of facilities), $6,870,250,000 of which—

(A) $962,000,000 shall be for Aeronautics;

(B) $150,000,000 shall be for a Hubble Space Telescope servicing mission;

(C) $24,000,000 shall be for the National Space Grant College and Fellowship Program; and

(D) $8,900,000 for the Science and Technology Scholarship Program.

(2) For Exploration Systems (including amounts for construction of facilities), $3,844,100,000.

(3) For Space Operations (including amounts for construction of facilities), $6,218,900,000.

(4) For the Office of Inspector General, $32,400,000.

SEC. 203. FISCAL YEAR 2007.

There are authorized to be appropriated to NASA for fiscal year 2007 $17,726,800,000, as follows:

(1) For Science, Aeronautics and Education (including amounts for construction of facilities), $7,331,600,000 of which—

(A) $990,000,000 shall be for Aeronautics; and

(B) $24,000,000 shall be for the National Space Grant College and Fellowship Program.

(2) For Exploration Systems (including amounts for construction of facilities), $4,514,000,000.

(3) For Space Operations (including amounts for construction of facilities), $5,847,700,000.

(4) For the Office of Inspector General, $33,500,000.

SEC. 204. ISS RESEARCH.

The Administrator shall allocate at least 15 percent of the funds budgeted for ISS research to research that is not directly related to supporting the human exploration program.

SEC. 205. TEST FACILITIES.

(a) CHARGES.—The Administrator shall establish a policy of charging users of NASA's test facilities for the costs associated with their tests at a level that is competitive with alternative test facilities. As a general principle, NASA shall not seek to recover the full costs of the operation of those facilities from the users. The Administrator shall not implement a policy of seeking full cost recovery for a facility until at least 30 days after transmitting a notice to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate.

(b) FUNDING ACCOUNT.—The Administrator shall establish a funding account that shall be used for all test facilities. The account shall be sufficient to maintain the viability of test facilities during periods of low utilization.

SEC. 206. PROPORTIONALITY.

If the total amount appropriated for NASA pursuant to section 202 or 203 is less than the amount authorized under such section, the amounts authorized under each of the accounts specified in such section shall be reduced proportionately.

SEC. 207. LIMITATIONS ON AUTHORITY.

Notwithstanding any other provision of this Act, no amount appropriated pursuant to this Act may be used for any program in excess of the amount actually authorized for the particular program by section 202 or 203, unless a period of 30 days has passed after the receipt, by the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate, of notice given by the Administrator containing a full and complete statement of the action proposed to be taken and the facts and circumstances relied upon in support of such a proposed action. NASA shall keep the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate fully and currently informed with respect to all activities and responsibilities within the jurisdiction of those Committees.

SEC. 208. NOTICE OF REPROGRAMMING.

If any funds authorized by this Act are subject to a reprogramming action that requires notice to be provided to the Appropriations Committees of the House of Representatives and the Senate, notice of such action shall concurrently be provided to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate.

SEC. 209. COST OVERRUNS.

When reprogramming funds to cover unexpected cost growth within a program, the Administrator shall, to the maximum extent practicable, protect funds intended for fundamental and applied Research and Analysis.

SEC. 210. OFFICIAL REPRESENTATIONAL FUND.

Amounts appropriated pursuant to this Act may be used, but not to exceed a total of $35,000 in any fiscal year, for official reception and representation expenses.

SEC. 211. INTERNATIONAL SPACE STATION COST CAP.

Section 202 of the National Aeronautics and Space Administration Authorization Act of 2000 (42 U.S.C. 2451 note) is repealed.

TITLE III—SCIENCE

Subtitle A—General Provisions

SEC. 301. PERFORMANCE ASSESSMENTS.

(a) IN GENERAL.—Performance of each discipline in the Science account of NASA shall be reviewed and assessed by the National Academy of Sciences at 5-year intervals.

(b) TIMING.—Beginning with the first fiscal year following the date of enactment of this Act, the Administrator shall select at least one discipline for review under this section. The Administrator shall select disciplines so that all disciplines will have received their first review within six fiscal years of the date of enactment of this Act.

(c) REPORTS.—Not later than March 1 of each year, beginning with the first fiscal year after the date of enactment of this Act, the Administrator shall transmit a report to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate—

(1) setting forth in detail the results of any external review under subsection (a);

(2) setting forth in detail actions taken by NASA in response to any external review; and

(3) including a summary of findings and recommendations from any other relevant external reviews of NASA's science mission priorities and programs.

SEC. 302. STATUS REPORT ON HUBBLE SPACE TELESCOPE SERVICING MISSION.

It is the sense of the Congress that the Hubble Space Telescope is an extraordinary instrument that has provided, and should continue to provide, answers to profound scientific questions. In accordance with the recommendations of the National Academy of Sciences study titled ''Assessment of Options for Extending the Life of the Hubble Space Telescope'', all appropriate efforts should be expended to complete the Space Shuttle servicing mission. Upon successful completion of the planned return-to-flight schedule of the Space Shuttle, the Administrator shall determine the schedule for a Space Shuttle servicing mission to the Hubble Space Telescope, unless such a mission would compromise astronaut safety. Not later than 60 days after the landing of the second Space Shuttle mission for return-to-flight certification, the Administrator shall transmit to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a status report on plans for a Hubble Space Telescope servicing mission.

SEC. 303. INDEPENDENT ASSESSMENT OF LANDSAT-NPOESS INTEGRATED MISSION.

(a) ASSESSMENT.—In view of the importance of ensuring continuity of Landsat data and in view of the challenges facing the National Polar-Orbiting Environmental Satellite System program, the Administrator shall seek an independent assessment of the

costs as well as the technical, cost, and schedule risks associated with incorporating the Landsat instrument on the first National Polar-Orbiting Environmental Satellite System spacecraft versus undertaking a dedicated Landsat data ''gap-filler'' mission followed by the incorporation of the Landsat instrument on the second National Polar-Orbiting Environmental Satellite System spacecraft. The assessment shall also include an evaluation of the budgetary requirements of each of the options under consideration.

(b) REPORT.—The Administrator shall transmit the independent assessment to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate not later than 180 days after the date of enactment of this Act.

SEC. 304. ASSESSMENT OF SCIENCE MISSION EXTENSIONS.

(a) ASSESSMENT.—The Administrator shall carry out annual termination reviews within each of the Science disciplines to assess the cost and benefits of extending the date of the termination of data collection for those missions which are beyond their primary goals. In addition:

(1) Not later than 60 days after the date of enactment of this Act, the Administrator shall carry out such an assessment for the following missions: FAST, TIMED, Cluster, Wind, Geotail, Polar, TRACE, Ulysses, and Voyager.

(2) For those missions that have an operational component, the National Oceanic and Atmospheric Administration shall be consulted and the potential benefits of instruments on missions which are beyond their primary goals taken into account.

(b) REPORT.—Not later than 30 days after completing the assessments required by subsection (a)(1), the Administrator shall transmit a report on the assessment to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate.

SEC. 305. MICROGRAVITY RESEARCH.

(a) IN GENERAL.—The Administrator shall—

(1) not later than 60 days after the date of enactment of this Act, provide to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate an assessment of microgravity research planned for implementation aboard the ISS that includes the identification of research which can be performed in ground-based facilities and then validated in space;

(2) ensure the capacity to support ground-based research leading to space-based basic and applied scientific research in a variety of disciplines with potential direct national benefits and applications that can advance significantly from the uniqueness of microgravity and the space environment; and

(3) carry out, to the maximum extent practicable basic, applied, and commercial ISS research activities such as molecular crystal growth, animal research, basic fluid physics, combustion research, cellular biotechnology, low temperature physics, and cellular research at a level which will sustain the existing scientific expertise and research capabilities.

(b) ON-ORBIT CAPABILITIES.—The Administrator shall ensure that the on-orbit analytical capabilities of the ISS are sufficient to support any diagnostic human research and on-orbit characterization of molecular crystal growth, cellular research, and other research that NASA believes is necessary to conduct, but for which NASA lacks the capacity to return the materials that need to be analyzed to Earth.

(c) ASSESSMENT OF POTENTIAL SCIENTIFIC USES.—The Administrator shall assess further potential scientific uses of the ISS for other applications, such as technology development, development of manufacturing processes, Earth observation and characterization, and astronomical observations.

SEC. 306. COORDINATION WITH THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION.

(a) JOINT WORKING GROUP.—The Administrator and the Administrator of the National Oceanic and Atmospheric Administration shall appoint a Joint Working Group, which shall review and monitor missions of the two agencies to ensure maximum coordination in the design, operation, and transition of missions. The Joint Working Group shall also prepare the transition plans required by subsection (c).

(b) COORDINATION REPORT.—Not later than February 15 of each year, the Administrator and the Administrator of the National Oceanic and Atmospheric Administration shall jointly transmit a report to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate on how the earth science programs of the National Oceanic and Atmospheric Administration and NASA will be coordinated during the fiscal year following the fiscal year in which the report is transmitted.

(c) COORDINATION OF TRANSITION PLANNING AND REPORTING.—The Administrator, in conjunction with the Administrator of the National Oceanic and Atmospheric Administration, shall evaluate all NASA missions for their potential operational capabilities and shall prepare transition plans for all existing and future Earth observing systems found to have potential operational capabilities and all National Oceanic and Atmospheric Administration operational space-based systems.

(d) LIMITATION.—The Administrator shall not transfer any NASA earth science mission or Earth observing system to the National Oceanic and Atmospheric Administration until the transition plan required under subsection (c) has been approved by the Administrator and the Administrator of the National Oceanic and Atmospheric Administration and until financial resources have been identified to support the transition or transfer in the President's budget request for the National Oceanic and Atmospheric Administration.

Subtitle B—Remote Sensing

SEC. 311. DEFINITIONS.

In this subtitle—

(1) the term ''geospatial information'' means knowledge of the nature and distribution of physical and cultural features on the landscape based on analysis of data from airborne or spaceborne platforms or other types and sources of data;

(2) the term ''high resolution'' means resolution better than five meters; and

(3) the term ''institution of higher education'' has the meaning given that term in section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a)).

SEC. 312. PILOT PROJECTS TO ENCOURAGE PUBLIC SECTOR APPLICATIONS.

(a) IN GENERAL.—The Administrator shall establish a program of grants for competitively awarded pilot projects to explore the integrated use of sources of remote sensing and other geospatial information to address State, local, regional, and tribal agency needs.

(b) PREFERRED PROJECTS.—In awarding grants under this section, the Administrator shall give preference to projects that—

(1) make use of commercial data sets, including high resolution commercial satellite imagery and derived satellite data products, existing public data sets where commercial data sets are not available or applicable, or the fusion of such data sets;

(2) integrate multiple sources of geospatial information, such as geographic information system data, satellite-provided positioning data, and remotely sensed data, in innovative ways;

(3) include funds or in-kind contributions from non-Federal sources;

(4) involve the participation of commercial entities that process raw or lightly processed data, often merging that data with other geospatial information, to create data products that have significant value added to the original data; and

(5) taken together demonstrate as diverse a set of public sector applications as possible.

(c) OPPORTUNITIES.—In carrying out this section, the Administrator shall seek opportunities to assist—

(1) in the development of commercial applications potentially available from the remote sensing industry; and

(2) State, local, regional, and tribal agencies in applying remote sensing and other geospatial information technologies for growth management.

(d) DURATION.—Assistance for a pilot project under subsection (a) shall be provided for a period not to exceed 3 years.

(e) REPORT.—Each recipient of a grant under subsection (a) shall transmit a report to the Administrator on the results of the pilot project within 180 days of the completion of that project.

(f) WORKSHOP.—Each recipient of a grant under subsection (a) shall, not later than 180 days after the completion of the pilot project, conduct at least one workshop for potential users to disseminate the lessons learned from the pilot project as widely as feasible.

(g) REGULATIONS.—The Administrator shall issue regulations establishing application, selection, and implementation procedures for pilot projects, and guidelines for reports and workshops required by this section.

SEC. 313. PROGRAM EVALUATION.

(a) ADVISORY COMMITTEE.—The Administrator shall establish an advisory committee, consisting of individuals with appropriate expertise in State, local, regional, and tribal agencies, the university research community, and the remote sensing and other geospatial information industry, to monitor the program established under section 312. The advisory committee shall consult with the Federal Geographic Data Committee and other appropriate industry representatives and organizations. Notwithstanding section 14 of the Federal Advisory Committee Act, the advisory committee established under this subsection shall remain in effect until the termination of the program under section 312.

(b) EFFECTIVENESS EVALUATION.—Not later than December 31, 2009, the Administrator shall transmit to the Congress an evaluation of the effectiveness of the program established under section 312 in exploring and promoting the integrated use of sources of remote sensing and other geospatial information to address State, local, regional, and tribal agency needs. Such evaluation shall have been conducted by an independent entity.

SEC. 314. DATA AVAILABILITY.

The Administrator shall ensure that the results of each of the pilot projects completed under section 312 shall be retrievable through an electronic, Internet-accessible database.

SEC. 315. EDUCATION.

The Administrator shall establish an educational outreach program to increase awareness at institutions of higher education and State, local, regional, and tribal

agencies of the potential applications of remote sensing and other geospatial information.

Subtitle C—George E. Brown, Jr. Near-Earth Object Survey

SEC. 321. GEORGE E. BROWN, JR. NEAR-EARTH OBJECT SURVEY.

(a) SHORT TITLE.—This section may be cited as the ''George E. Brown, Jr. Near-Earth Object Survey Act''.

(b) FINDINGS.—The Congress makes the following findings:

(1) Near-Earth objects pose a serious and credible threat to humankind, as many scientists believe that a major asteroid or comet was responsible for the mass extinction of the majority of the Earth's species, including the dinosaurs, nearly 65,000,000 years ago.

(2) Similar objects have struck the Earth or passed through the Earth's atmosphere several times in the Earth's history and pose a similar threat in the future.

(3) Several such near-Earth objects have only been discovered within days of the objects' closest approach to Earth, and recent discoveries of such large objects indicate that many large near-Earth objects remain undiscovered.

(4) The efforts taken to date by NASA for detecting and characterizing the hazards of near-Earth objects are not sufficient to fully determine the threat posed by such objects to cause widespread destruction and loss of life.

(c) DEFINITIONS.—For purposes of this section the term ''near-Earth object'' means an asteroid or comet with a perihelion distance of less that 1.3 Astronomical Units from the Sun.

(d) NEAR-EARTH OBJECT SURVEY.—

(1) SURVEY PROGRAM.—The Administrator shall plan, develop, and implement a Near-Earth Object Survey program to detect, track, catalogue, and characterize the physical characteristics of near-Earth objects equal to or greater than 100 meters in diameter in order to assess the threat of such near-Earth objects to the Earth. It shall be the goal of the Survey program to achieve 90 percent completion of its near-Earth object catalogue (based on statistically predicted populations of near-Earth objects) within 15 years after the date of enactment of this Act.

(2) AMENDMENTS.—Section 102 of the National Aeronautics and Space Act of 1958 (42 U.S.C. 2451) is amended—

(A) by redesignating subsection (g) as subsection (h);

(B) by inserting after subsection (f) the following new subsection:

''(g) The Congress declares that the general welfare and security of the United States require that the unique competence of the National Aeronautics and Space Administration be directed to detecting, tracking, cataloguing, and characterizing near-Earth asteroids and comets in order to provide warning and mitigation of the potential hazard of such near-Earth objects to the Earth.''; and

(C) in subsection (h), as so redesignated by subparagraph (A) of this paragraph, by striking ''and (f)'' and inserting ''(f), and (g)''.

(3) ANNUAL REPORT.—The Administrator shall transmit to the Congress, not later than February 28 of each of the next 5 years beginning after the date of enactment of this Act, a report that provides the following:

(A) A summary of all activities taken pursuant to paragraph (1) for the previous fiscal year.

(B) A summary of expenditures for all activities pursuant to paragraph (1) for the previous fiscal year.

(4) INITIAL REPORT.—The Administrator shall transmit to Congress not later than 1 year after the date of enactment of this Act an initial report that provides the following:

(A) An analysis of possible alternatives that NASA may employ to carry out the Survey program, including ground-based and space-based alternatives with technical descriptions.

(B) A recommended option and proposed budget to carry out the Survey program pursuant to the recommended option.

(C) An analysis of possible alternatives that NASA could employ to divert an object on a likely collision course with Earth.

TITLE IV—AERONAUTICS

SEC. 401. DEFINITION.

For purposes of this title, the term ''institution of higher education'' has the meaning given that term by section 101 of the Higher Education Act of 1965 (20 U.S.C. 1001).

Subtitle A—National Policy for Aeronautics Research and Development

SEC. 411. POLICY.

It shall be the policy of the United States to reaffirm the National Aeronautics and Space Act of 1958 and its identification of aeronautical research and development as a core mission of NASA. Further, it shall be the policy of the United States to promote aeronautical research and development that will expand the capacity, ensure the safety, and increase the efficiency of the Nation's air transportation system, promote the security of the Nation, protect the environment, and retain the leadership of the United States in global aviation.

Subtitle B—NASA Aeronautics Breakthrough Research Initiatives

SEC. 421. ENVIRONMENTAL AIRCRAFT RESEARCH AND DEVELOPMENT INITIATIVE.

(a) OBJECTIVE.—The Administrator may establish an initiative with the objective of developing, and demonstrating in a relevant environment, within 10 years after the date of enactment of this Act, technologies to enable the following commercial aircraft performance characteristics:

(1) NOISE.—Noise levels on takeoff and on airport approach and landing that do not exceed ambient noise levels in the absence of flight operations in the vicinity of airports from which such commercial aircraft would normally operate.

(2) ENERGY CONSUMPTION.—Twenty-five percent reduction in the energy required for medium to long range flights, compared to aircraft in commercial service as of the date of enactment of this Act. This reduction may be achieved by a combination of improvements to—

(A) specific fuel consumption;

(B) lift-to-drag ratio; and

(C) structural weight fraction.

(3) EMISSIONS.—Nitrogen oxides on take-off and landing that are reduced by 50 percent relative to aircraft in commercial service as of the date of enactment of this Act.

(b) STUDY.—

(1) REQUIREMENT.—The Administrator shall enter into an arrangement for the National Research Council to conduct a study to identify and quantify new markets that would be created, as well as existing markets that would be expanded, by the incorporation of the technologies developed pursuant to this section into future commercial aircraft. The study shall identify whether any of the performance characteristics specified in subsection (a) would need to be made more stringent in order to create new markets or expand existing markets. The National Research Council shall seek input from at least the aircraft manufacturing industry, academia, and the airlines in carrying out the study.

(2) REPORT.—A report containing the results of the study conducted under paragraph (1) shall be provided to Congress not later than 18 months after the date of enactment of this Act.

SEC. 422. CIVIL SUPERSONIC TRANSPORT RESEARCH AND DEVELOPMENT INITIATIVE.

The Administrator may establish an initiative with the objective of developing, and demonstrating in a relevant environment, within 20 years after the date of enactment of this Act, technologies to enable overland flight of supersonic civil transport aircraft with at least the following performance characteristics:

(1) Mach number of at least 1.4.

(2) Range of at least 4,000 nautical miles.

(3) Payload of at least 24 passengers.

(4) Noise levels on takeoff and on airport approach and landing that meet community noise standards in place at airports from which such commercial supersonic aircraft would normally operate at the time the aircraft would enter commercial service.

(5) Shaped sonic boom signatures sufficiently low to permit overland flight over populated areas.

(6) Nitrogen oxide, carbon dioxide, and water vapor emissions consistent with regulations likely to be in effect at the time of this aircraft's introduction.

SEC. 423. ROTORCRAFT AND OTHER RUNWAY-INDEPENDENT AIR VEHICLES RESEARCH AND DEVELOPMENT INITIATIVE.

The Administrator may establish a rotorcraft and other runway-independent air vehicles initiative with the objective of developing and demonstrating in a relevant environment, within 10 years after the date of enactment of this Act, technologies to enable significantly safer, quieter, and more environmentally compatible operation from a wider range of airports under a wider range of weather conditions than is the case for rotorcraft and other runway-independent air vehicles in service as of the date of enactment of this Act.

Subtitle C—Other NASA Aeronautics Research and Development Activities

SEC. 431. FUNDAMENTAL RESEARCH AND TECHNOLOGY BASE PROGRAM.

(a) OBJECTIVE.—In order to ensure that the Nation maintains needed capabilities in fundamental areas of aeronautical research, the Administrator shall establish a program of long-term fundamental research in aeronautical sciences and technologies that is not tied to specific development projects.

(b) ASSESSMENT.—The Administrator shall enter into an arrangement with the National Research Council for an assessment of the Nation's future requirements for fundamental aeronautics research and whether the Nation will have a skilled research workforce and research facilities commensurate with those requirements. The assessment shall include an identification of any projected gaps, and recommendations for what steps should be taken by the Federal Government to eliminate those gaps.

(c) REPORT.—The Administrator shall transmit the assessment, along with NASA's response to the assessment, to Congress not later than 2 years after the date of enactment of this Act.

SEC. 432. AIRSPACE SYSTEMS RESEARCH.

(a) OBJECTIVE.—The Airspace Systems Research program shall pursue research and development to enable revolutionary improvements to and modernization of the National Airspace System, as well as to enable the introduction of new systems for vehicles that can take advantage of an improved, modern air transportation system.

(b) ALIGNMENT.—Not later than 2 years after the date of enactment of this Act, the Administrator shall align the projects of the

Airspace Systems Research program so that they directly support the objectives of the Joint Planning and Development Office's Next Generation Air Transportation System Integrated Plan.

SEC. 433. AVIATION SAFETY AND SECURITY RESEARCH.

(a) OBJECTIVE.—The Aviation Safety and Security Research program shall pursue research and development activities that directly address the safety and security needs of the National Airspace System and the aircraft that fly in it. The program shall develop prevention, intervention, and mitigation technologies aimed at causal, contributory, or circumstantial factors of aviation accidents.

(b) PLAN.—Not later than 1 year after the date of enactment of this Act, the Administrator shall transmit to Congress a 5-year prioritized plan for the research to be conducted within the Aviation Safety and Security Research program. The plan shall be aligned with the objectives of the Joint Planning and Development Office's Next Generation Air Transportation System Integrated Plan.

SEC. 434. ZERO-EMISSIONS AIRCRAFT RESEARCH.

(a) OBJECTIVE.—The Administrator may establish a zero-emissions aircraft research program whose objective shall be to develop and test concepts to enable a hydrogen fuel cell-powered aircraft that would have no hydrocarbon or nitrogen oxide emissions into the environment.

(b) APPROACH.—The Administrator may establish a program of competitively awarded grants available to teams of researchers that may include the participation of individuals from universities, industry, and government for the conduct of this research.

SEC. 435. MARS AIRCRAFT RESEARCH.

(a) OBJECTIVE.—The Administrator may establish a Mars Aircraft project whose objective shall be to develop and test concepts for an uncrewed aircraft that could operate for sustained periods in the atmosphere of Mars.

(b) APPROACH.—The Administrator may establish a program of competitively awarded grants available to teams of researchers that may include the participation of individuals from universities, industry, and government for the conduct of this research.

SEC. 436. HYPERSONICS RESEARCH.

The Administrator may establish a hypersonics research program whose objective shall be to explore the science and technology of hypersonic flight using air-breathing propulsion concepts, through a mix of theoretical work, basic and applied research, and development of flight research demonstration vehicles.

SEC. 437. NASA AERONAUTICS SCHOLARSHIPS.

(a) ESTABLISHMENT.—The Administrator shall establish a program of scholarships for full-time graduate students who are United States citizens and are enrolled in, or have been accepted by and have indicated their intention to enroll in, accredited Masters degree programs in aeronautical engineering at institutions of higher education. Each such scholarship shall cover the costs of room, board, tuition, and fees, and may be provided for a maximum of 2 years.

(b) IMPLEMENTATION.—Not later than 180 days after the date of enactment of this Act, the Administrator shall publish regulations governing the scholarship program under this section.

(c) COOPERATIVE TRAINING OPPORTUNITIES.—Students who have been awarded a scholarship under this section shall have the opportunity for paid employment at one of the NASA Centers engaged in aeronautics research and development during the summer prior to the first year of the student's Masters program, and between the first and second year, if applicable.

SEC. 438. AVIATION WEATHER RESEARCH.

The Administrator may carry out a program of collaborative research with the National Oceanic and Atmospheric Administration on convective weather events, with the goal of significantly improving the reliability of 2-hour to 6-hour aviation weather forecasts.

SEC. 439. ASSESSMENT OF WAKE TURBULENCE RESEARCH AND DEVELOPMENT PROGRAM.

(a) ASSESSMENT.—The Administrator may enter into an arrangement with the National Research Council for an assessment of Federal wake turbulence research and development programs. The assessment shall address at least the following questions:

(1) Are the Federal research and development goals and objectives well defined?

(2) Are there any deficiencies in the Federal research and development goals and objectives?

(3) What roles should be played by each of the relevant Federal agencies, such as NASA, the Federal Aviation Administration, and the National Oceanic and Atmospheric Administration, in wake turbulence research and development?

(b) REPORT.—A report containing the results of the assessment conducted pursuant to subsection (a) shall be provided to Congress not later than 1 year after the date of enactment of this Act.

SEC. 440. UNIVERSITY-BASED CENTERS.

(a) IN GENERAL.—The Administrator may award grants to institutions of higher education (or consortia thereof) to establish one or more centers for the purpose described in subsection (b).

(b) PURPOSE.—The purpose of the centers is to conduct basic and applied research on the impact of new technologies and procedures, particularly those related to aeronautical navigation and control.

(c) APPLICATION.—An institution of higher education (or a consortium of such institutions) seeking funding under this section shall submit an application to the Administrator at such time, in such manner, and containing such information as the Administrator may require, including, at a minimum, a 5-year research plan.

(d) AWARD DURATION.—An award made by the Administrator under this section shall be for a period of 5 years and may be renewed on the basis of—

(1) satisfactory performance in meeting the goals of the research plan proposed by the Center in its application under subsection (c); and

(2) other requirements as specified by the Administrator.

TITLE V—HUMAN SPACE FLIGHT

SEC. 501. INTERNATIONAL SPACE STATION COMPLETION.

(a) ELEMENTS, CAPABILITIES, AND CONFIGURATION CRITERIA.—The Administrator shall ensure that the ISS will be able to—

(1) be used for a diverse range of microgravity research, including fundamental, applied, and commercial research;

(2) have an ability to support crew size of at least 6 persons, unless the Administrator transmits a report to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate prior to awarding a development contract for the Crew Exploration Vehicle, explaining why such a requirement should not be met and the impact of not meeting the requirement on the ISS research agenda and operations;

(3) support Crew Exploration Vehicle docking and automated docking of cargo vehicles or modules launched by either heavy-lift or commercially-developed launch vehicles; and

(4) be operated at an appropriate risk level.

(b) CONTINGENCY PLAN.—The transportation plan to support ISS shall include contingency options to ensure sufficient logistics and on-orbit capabilities to support any potential period during which the Space Shuttle or its follow-on crew and cargo systems is unavailable, and require sufficient surge delivery capability or prepositioning of spares and other supplies needed to accommodate any such hiatus.

(c) CERTIFICATION.—Not later than 60 days after the date of enactment of this Act, and before making any change in the ISS assembly sequence in effect on the date of enactment of this Act, the Administrator shall certify in writing to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate NASA's plan to meet the requirements of subsections (a) and (b).

(d) CENTRIFUGE.—Nothing in this Act shall be construed to prohibit the installation of the centrifuge on the ISS.

SEC. 502. HUMAN EXPLORATION PRIORITIES.

(a) IN GENERAL.—The Administrator shall—

(1) construct an architecture and implementation plan for NASA's human exploration program that is not critically dependent on the achievement of milestones by fixed dates; and

(2) determine the relative priority of each of the potential elements of NASA's implementation plan for its human exploration program in case funding shortfalls or cost growth necessitate the adjustment of NASA's implementation plan.

(b) PRIORITIES.—Development of a Crew Exploration Vehicle with a robust crew escape system, development of a launch system for the Crew Exploration Vehicle, and definition of an overall architecture and prioritized implementation plan shall be the highest priorities of the human exploration program over the period governed by this Act.

SEC. 503. GAO ASSESSMENT.

Not later than 9 months after the date of enactment of this Act, the Comptroller General shall transmit to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate an assessment of the milestones and estimated costs of the plans submitted under section 102(a)(7).

TITLE VI—OTHER PROGRAM AREAS

Subtitle A—Space and Flight Support

SEC. 601. ORBITAL DEBRIS.

The Administrator, in conjunction with the heads of other Federal agencies, shall take steps to develop or acquire technologies that will enable NASA to decrease the risks associated with orbital debris.

SEC. 602. SECONDARY PAYLOAD CAPABILITY.

The Administrator is encouraged to provide the capabilities to support secondary payloads on United States launch vehicles, including freeflyers, for satellites or scientific payloads.

Subtitle B—Education

SEC. 611. INSTITUTIONS IN NASA'S MINORITY INSTITUTIONS PROGRAM.

The matter appearing under the heading ''NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, SMALL AND DISADVANTAGED BUSINESS'' in title III of the Departments of Veterans Affairs and Housing and Urban Development, and Independent Agencies Appropriations Act, 1990 (42 U.S.C. 2473b; 103 Stat. 863) is amended by striking ''Historically Black Colleges and Universities and'' and inserting ''Historically Black Colleges and Universities that are part B institutions (as defined in section 322(2) of the Higher Education Act of 1965 (20 U.S.C. 1061(2))), Hispanic-serving institutions (as defined in section 502(a)(5) of that Act (20 U.S.C.

1101a(a)(5))), Tribal Colleges or Universities (as defined in section 316(b)(3) of that Act (20 U.S.C. 1059c(b)(3))), Alaskan Native-serving institutions (as defined in section 317(b)(2) of that Act (20 U.S.C. 1059d)(b)(2))), Native Hawaiian-serving institutions (as defined in section 317(b)(4) of that Act (20 U.S.C. 1059d(b)(4))), and''.

SEC. 612. PROGRAM TO EXPAND DISTANCE LEARNING IN RURAL UNDERSERVED AREAS.

(a) IN GENERAL.—The Administrator shall develop or expand programs to extend science and space educational outreach to rural communities and schools through video conferencing, interpretive exhibits, teacher education, classroom presentations, and student field trips.

(b) PRIORITIES.—In carrying out subsection (a), the Administrator shall give priority to existing programs—

(1) that utilize community-based partnerships in the field;

(2) that build and maintain video conference and exhibit capacity;

(3) that travel directly to rural communities and serve low-income populations; and

(4) with a special emphasis on increasing the number of women and minorities in the science and engineering professions.

SEC. 613. CHARLES "PETE" CONRAD ASTRONOMY AWARDS.

(a) SHORT TITLE.—This section may be cited as the ''Charles 'Pete' Conrad Astronomy Awards Act''.

(b) DEFINITIONS.—For the purposes of this section—

(1) the term ''amateur astronomer'' means an individual whose employer does not provide any funding, payment, or compensation to the individual for the observation of asteroids and other celestial bodies, and does not include any individual employed as a professional astronomer;

(2) the term ''Minor Planet Center'' means the Minor Planet Center of the Smithsonian Astrophysical Observatory;

(3) the term ''near-Earth asteroid'' means an asteroid with a perihelion distance of less than 1.3 Astronomical Units from the Sun; and

(4) the term ''Program'' means the Charles ''Pete'' Conrad Astronomy Awards Program established under subsection (c).

(c) PETE CONRAD ASTRONOMY AWARD PROGRAM.—

(1) IN GENERAL.—The Administrator shall establish the Charles ''Pete'' Conrad Astronomy Awards Program.

(2) AWARDS.—The Administrator shall make awards under the Program based on the recommendations of the Minor Planet Center.

(3) AWARD CATEGORIES.—The Administrator shall make one annual award, unless there are no eligible discoveries or contributions, for each of the following categories:

(A) The amateur astronomer or group of amateur astronomers who in the preceding calendar year discovered the intrinsically brightest near-Earth asteroid among the near-Earth asteroids that were discovered during that year by amateur astronomers or groups of amateur astronomers.

(B) The amateur astronomer or group of amateur astronomers who made the greatest contribution to the Minor Planet Center's mission of cataloguing near-Earth asteroids during the preceding year.

(4) AWARD AMOUNT.—An award under the Program shall be in the amount of $3,000.

(5) GUIDELINES.—(A) No individual who is not a citizen or permanent resident of the United States at the time of his discovery or contribution may receive an award under this section.

(B) The decisions of the Administrator in making awards under this section are final.

SEC. 614. REVIEW OF EDUCATION PROGRAMS.

(a) IN GENERAL.—The Administrator shall enter into an arrangement with the National Research Council of the National Academy of Sciences to conduct a review and evaluation of NASA's science, technology, engineering, and mathematics education program. The review and evaluation shall be documented in a report to the Administrator and shall include such recommendations as the National Research Council determines will improve the effectiveness of the program.

(b) REVIEW.—The review and evaluation under subsection (a) shall include—

(1) an evaluation of the effectiveness of the overall program in meeting its defined goals and objectives;

(2) an assessment of the quality and educational effectiveness of the major components of the program, including an evaluation of the adequacy of assessment metrics and data collection requirements available for determining the effectiveness of individual projects;

(3) an evaluation of the funding priorities in the program, including a review of the funding level and funding trend for each major component of the program and an assessment of whether the resources made available are consistent with meeting identified goals and priorities; and

(4) a determination of the extent and the effectiveness of coordination and collaboration between NASA and other Federal agencies that sponsor science, technology, engineering, and mathematics education activities.

(c) REPORT TO CONGRESS.—Not later than 18 months after the date of enactment of this Act, the Administrator shall transmit to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate the report required under subsection (a).

SEC. 615. EQUAL ACCESS TO NASA'S EDUCATION PROGRAMS.

The Administrator shall strive to ensure equal access for minority and economically disadvantaged students to NASA's Education programs. Not later than 1 year after the date of enactment of this Act, and every 2 years thereafter, the Administrator shall submit a report to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate describing the efforts by the Administrator to ensure equal access for minority and economically disadvantaged students under this section, and the results of such efforts. As part of the report, the Administrator shall provide data on minority participation in NASA's education programs, at a minimum in the following categories: elementary and secondary education, undergraduate education, and graduate education.

SEC. 616. MUSEUMS.

The Administrator may provide grants to, and enter into cooperative agreements with museums and planetariums to enable them to enhance programs related to space exploration, aeronautics, space science, earth science, or microgravity.

SEC. 617. REVIEW OF MUST PROGRAM.

Not later than 60 days after the date of enactment of this Act, the Administrator shall transmit a report to Congress on the legal status of the Motivating Undergraduates in Science and Technology program. If the report concludes that the program is in compliance with the laws of the United States, NASA shall implement the program, as planned in the July 5, 2005 National Research Announcement.

TITLE VII—MISCELLANEOUS AMENDMENTS

SEC. 701. RETROCESSION OF JURISDICTION.

The National Aeronautics and Space Act of 1958 (42 U.S.C. 2451 et seq.) is amended by adding at the end of title III the following new section:

''RETROCESSION OF JURISDICTION

''SEC. 316. (a) Notwithstanding any other provision of law, the Administrator may relinquish to a State all or part of the legislative jurisdiction of the United States over lands or interests under the control of the Administrator in that State.

''(b) For purposes of this section, the term 'State' means any of the several States, the District of Columbia, the Commonwealth of Puerto Rico, the United States Virgin Islands, Guam, American Samoa, the Northern Mariana Islands, and any other commonwealth, territory, or possession of the United States.''.

SEC. 702. EXTENSION OF INDEMNIFICATION.

Section 309 of the National Aeronautics and Space Act of 1958 (42 U.S.C. 2458c) is amended in subsection (f)(1) by striking ''December 31, 2002'' through ''September 30, 2005'' and inserting, ''December 31, 2010, except that the Administrator may extend the termination date to a date not later than September 30, 2015, if the Administrator has entered into an arrangement with the National Academy of Public Administration to determine the impact on private parties and the Federal Government of eliminating this section''.

SEC. 703. NASA SCHOLARSHIPS.

(a) AMENDMENTS.—Section 9809 of title 5, United States Code, is amended—

(1) in subsection (a)(2) by striking ''Act.'' and inserting ''Act (42 U.S.C. 1885a or 1885b).'';

(2) in subsection (c) by striking ''require.'' and inserting ''require to carry out this section.'';

(3) in subsection (f)(1) by striking the last sentence; and

(4) in subsection (g)(2) by striking ''Treasurer of the'' and all that follows through ''by 3'' and inserting ''Treasurer of the United States''.

(b) REPEAL.—The Vision 100—Century of Aviation Reauthorization Act is amended by striking section 703 (42 U.S.C. 2473e).

SEC. 704. INDEPENDENT COST ANALYSIS.

Section 301 of the National Aeronautics and Space Administration Authorization Act of 2000 (42 U.S.C. 2459g) is amended—

(1) by striking ''Phase B'' in subsection (a) and inserting ''implementation'';

(2) by striking ''Chief Financial Officer'' each place it appears in subsection (a) and inserting ''Administrator'';

(3) by inserting ''and consider'' in subsection (a) after ''shall conduct''; and

(4) by striking subsection (b) and inserting the following:

''(b) IMPLEMENTATION DEFINED.—In this section, the term 'implementation' means all activity in the life cycle of a project after preliminary design, independent assessment of the preliminary design, and approval to proceed into implementation, including critical design, development, certification, launch, operations, disposal of assets, and, for technology programs, development, testing, analysis and communication of the results.''.

SEC. 705. LIMITATIONS ON OFF-SHORE PERFORMANCE OF CONTRACTS FOR THE PROCUREMENT OF GOODS AND SERVICES.

(a) CONVERSIONS TO CONTRACTOR PERFORMANCE OF ADMINISTRATION ACTIVITIES.—Except as provided in subsection (c), an activity or function of the Administration that is converted to contractor performance under Office of Management and Budget Circular A–

76 may not be performed by the contractor or any subcontractor at a location outside the United States.

(b) CONTRACTS FOR THE PROCUREMENT OF SERVICES.—(1) Except as provided in subsection (c), a contract for the procurement of goods or services that is entered into by the Administrator may not be performed outside the United States unless it is to meet a requirement of the Administration for goods or services specifically at a location outside the United States.

(2) The President may waive the prohibition in paragraph (1) in the case of any contract for which the President determines in writing that it is necessary in the national security interests of the United States for goods or services under the contract to be performed outside the United States.

(3) The Administrator may waive the prohibition in paragraph (1) in the case of any contract for which the Administrator determines in writing that essential goods or services under the contract are only available from a source outside the United States.

(c) EXCEPTION.—Subsections (a) and (b)(1) shall not apply to the extent that the activity or function under the contract was previously performed by Federal Government employees outside the United States.

(d) CONSISTENCY WITH INTERNATIONAL AGREEMENTS.—The provisions of this section shall not apply to the extent that they are inconsistent with obligations of the United States under international agreements.

(e) ANNUAL REPORT.—The Administrator shall submit to Congress, not later than 120 days after the end of each fiscal year, a report on the contracts performed overseas and amount of purchases by NASA from foreign entities in that fiscal year. Such report shall separately indicate the dollar value of contracts for which the provisions of this section were waived and the dollar value of items for which the Buy American Act was waived pursuant to obligations of the United States under international agreements.

SEC. 706. LONG DURATION FLIGHT.

No provision of this or any other Act shall be construed to prohibit NASA from accommodating the exercise of religion by astronauts engaged in long duration space flight missions.

TITLE VIII—INDEPENDENT COMMISSIONS

SEC. 801. DEFINITIONS.

For purposes of this title—

(1) the term ''Commission'' means a Commission established under this title; and

(2) the term ''incident'' means either an accident or a deliberate act.

Subtitle A—International Space Station Independent Safety Commission

SEC. 811. ESTABLISHMENT OF COMMISSION.

(a) ESTABLISHMENT.—The President shall establish an independent, nonpartisan Commission within the executive branch to discover and assess any vulnerabilities of the International Space Station that could lead to its destruction, compromise the health of its crew, or necessitate its premature abandonment.

(b) DEADLINE FOR ESTABLISHMENT.—The President shall issue an executive order establishing a Commission within 30 days after the date of enactment of this Act.

SEC. 812. TASKS OF THE COMMISSION.

The Commission established under section 811 shall, to the extent possible, undertake the following tasks:

(1) Catalog threats to and vulnerabilities of the ISS, including design flaws, natural phenomena, computer software or hardware flaws, sabotage or terrorist attack, number of crewmembers, and inability to adequately deliver replacement parts and supplies, and management or procedural deficiencies.

(2) Make recommendations for corrective actions.

(3) Provide any additional findings or recommendations related to ISS safety.

(4) Prepare a report to Congress, the President, and the public.

SEC. 813. SUNSET.

The Commission established under this subtitle shall transmit its final report not later than 1 year after the date on which the full Commission membership is appointed.

Subtitle B—Human Space Flight Independent Investigation Commission

SEC. 821. ESTABLISHMENT OF COMMISSION.

(a) ESTABLISHMENT.—The President shall establish an independent, nonpartisan Commission within the executive branch to investigate any incident that results in the loss of—

(1) a Space Shuttle;

(2) the International Space Station or its operational viability;

(3) any other United States space vehicle carrying humans that is owned by the Federal Government or that is being used pursuant to a contract with the Federal Government; or

(4) a crew member or passenger of any space vehicle described in this subsection.

(b) DEADLINE FOR ESTABLISHMENT.—The President shall issue an executive order establishing a Commission within 7 days after an incident specified in subsection (a).

SEC. 822. TASKS OF THE COMMISSION.

A Commission established pursuant to this subtitle shall, to the extent possible, undertake the following tasks:

(1) Investigate the incident.

(2) Determine the cause of the incident.

(3) Identify all contributing factors to the cause of the incident.

(4) Make recommendations for corrective actions.

(5) Provide any additional findings or recommendations deemed by the Commission to be important, whether or not they are related to the specific incident under investigation.

(6) Prepare a report to Congress, the President, and the public.

Subtitle C—Organization and Operation of Commissions

SEC. 831. COMPOSITION OF COMMISSIONS.

(a) NUMBER OF COMMISSIONERS.—A Commission established pursuant to this title shall consist of 15 members.

(b) SELECTION.—The members of a Commission shall be chosen in the following manner:

(1) The President shall appoint the members, and shall designate the Chairman and Vice Chairman of the Commission from among its members.

(2) Four of the 15 members appointed by the President shall be selected by the President in the following manner:

(A) The majority leader of the Senate, the minority leader of the Senate, the Speaker of the House of Representatives, and the minority leader of the House of Representatives shall each provide to the President a list of candidates for membership on the Commission.

(B) The President shall select one of the candidates from each of the 4 lists for membership on the Commission.

(3) In the case of a Commission established under subtitle A, the President shall select one candidate from a list of candidates for membership on the Commission provided by the President of the collective-bargaining organization including the largest number of NASA engineers.

(4) No officer or employee of the Federal Government shall serve as a member of the Commission.

(5) No member of the Commission shall have, or have pending, a contractual relationship with NASA.

(6) The President shall not appoint any individual as a member of a Commission under this section who has a current or former relationship with the Administrator that the President determines would constitute a conflict of interest.

(7) To the extent practicable, the President shall ensure that the members of the Commission include some individuals with experience relative to human carrying spacecraft, as well as some individuals with investigative experience and some individuals with legal experience.

(8) To the extent practicable, the President shall seek diversity in the membership of the Commission.

(9) The President may waive the prohibitions in paragraphs (5) and (6) with respect to the selection of not more than two members of a Commission established under subtitle A.

(c) DEADLINE FOR APPOINTMENT.—All members of a Commission established under subtitle A shall be appointed no later than 60 days after issuance of the executive order establishing the Commission. All members of a Commission established under subtitle B shall be appointed no later than 30 days after the incident.

(d) INITIAL MEETING.—A Commission shall meet and begin operations as soon as practicable.

(e) QUORUM; VACANCIES.—After its initial meeting, a Commission shall meet upon the call of the Chairman or a majority of its members. Eight members of a Commission shall constitute a quorum. Any vacancy in a Commission shall not affect its powers, but shall be filled in the same manner in which the original appointment was made.

SEC. 832. POWERS OF COMMISSION.

(a) HEARINGS AND EVIDENCE.—A Commission or, on the authority of the Commission, any subcommittee or member thereof, may, for the purpose of carrying out this title—

(1) hold such hearings and sit and act at such times and places, take such testimony, receive such evidence, administer such oaths; and

(2) require, by subpoena or otherwise, the attendance and testimony of such witnesses and the production of such books, records, correspondence, memoranda, papers, and documents,

as the Commission or such designated subcommittee or designated member may determine advisable.

(b) CONTRACTING.—A Commission may, to such extent and in such amounts as are provided in appropriation Acts, enter into contracts to enable the Commission to discharge its duties under this title.

(c) INFORMATION FROM FEDERAL AGENCIES.—

(1) IN GENERAL.—A Commission may secure directly from any executive department, bureau, agency, board, commission, office, independent establishment, or instrumentality of the Government, information, suggestions, estimates, and statistics for the purposes of this title. Each department, bureau, agency, board, commission, office, independent establishment, or instrumentality shall, to the extent authorized by law, furnish such information, suggestions, estimates, and statistics directly to the Commission, upon request made by the Chairman, the chairman of any subcommittee created by a majority of the Commission, or any member designated by a majority of the Commission.

(2) RECEIPT, HANDLING, STORAGE, AND DISSEMINATION.—Information shall only be received, handled, stored, and disseminated by

members of the Commission and its staff consistent with all applicable statutes, regulations, and Executive orders.

(d) ASSISTANCE FROM FEDERAL AGENCIES.—

(1) GENERAL SERVICES ADMINISTRATION.—The Administrator of General Services shall provide to a Commission on a reimbursable basis administrative support and other services for the performance of the Commission's tasks.

(2) OTHER DEPARTMENTS AND AGENCIES.—In addition to the assistance prescribed in paragraph (1), departments and agencies of the United States may provide to the Commission such services, funds, facilities, staff, and other support services as they may determine advisable and as may be authorized by law.

(3) NASA ENGINEERING AND SAFETY CENTER.—The NASA Engineering and Safety Center shall provide data and technical support as requested by a Commission.

SEC. 833. PUBLIC MEETINGS, INFORMATION, AND HEARINGS.

(a) PUBLIC MEETINGS AND RELEASE OF PUBLIC VERSIONS OF REPORTS.—A Commission shall—

(1) hold public hearings and meetings to the extent appropriate; and

(2) release public versions of the reports required under this Act.

(b) PUBLIC HEARINGS.—Any public hearings of a Commission shall be conducted in a manner consistent with the protection of information provided to or developed for or by the Commission as required by any applicable statute, regulation, or Executive order.

SEC. 834. STAFF OF COMMISSION.

(a) APPOINTMENT AND COMPENSATION.—The Chairman, in consultation with Vice Chairman, in accordance with rules agreed upon by a Commission, may appoint and fix the compensation of a staff director and such other personnel as may be necessary to enable the Commission to carry out its functions.

(b) DETAILEES.—Any Federal Government employee, except for an employee of NASA, may be detailed to a Commission without reimbursement from the Commission, and such detailee shall retain the rights, status, and privileges of his or her regular employment without interruption.

(c) CONSULTANT SERVICES.—A Commission may procure the services of experts and consultants in accordance with section 3109 of title 5, United States Code, but at rates not to exceed the daily rate paid a person occupying a position at level IV of the Executive Schedule under section 5315 of title 5, United States Code. Any consultant or expert whose services are procured under this subsection shall disclose any contract or association it has with NASA or any NASA contractor.

SEC. 835. COMPENSATION AND TRAVEL EXPENSES.

(a) COMPENSATION.—Each member of a Commission may be compensated at not to exceed the daily equivalent of the annual rate of basic pay in effect for a position at level IV of the Executive Schedule under section 5315 of title 5, United States Code, for each day during which that member is engaged in the actual performance of the duties of the Commission.

(b) TRAVEL EXPENSES.—While away from their homes or regular places of business in the performance of services for the Commission, members of a Commission shall be allowed travel expenses, including per diem in lieu of subsistence, in the same manner as persons employed intermittently in the Government service are allowed expenses under section 5703(b) of title 5, United States Code.

SEC. 836. SECURITY CLEARANCES FOR COMMISSION MEMBERS AND STAFF.

The appropriate Federal agencies or departments shall cooperate with a Commission in expeditiously providing to the Commission members and staff appropriate security clearances to the extent possible pursuant to existing procedures and requirements. No person shall be provided with access to classified information under this title without the appropriate security clearances.

SEC. 837. REPORTING REQUIREMENTS AND TERMINATION.

(a) INTERIM REPORTS.—A Commission may submit to the President and Congress interim reports containing such findings, conclusions, and recommendations for corrective actions as have been agreed to by a majority of Commission members.

(b) FINAL REPORT.—A Commission shall submit to the President and Congress, and make concurrently available to the public, a final report containing such findings, conclusions, and recommendations for corrective actions as have been agreed to by a majority of Commission members. Such report shall include any minority views or opinions not reflected in the majority report.

(c) TERMINATION.—

(1) IN GENERAL.—A Commission, and all the authorities of this title with respect to that Commission, shall terminate 60 days after the date on which the final report is submitted under subsection (b).

(2) ADMINISTRATIVE ACTIVITIES BEFORE TERMINATION.—A Commission may use the 60-day period referred to in paragraph (1) for the purpose of concluding its activities, including providing testimony to committees of Congress concerning its reports and disseminating the final report.

The motion was agreed to.

The Senate bill was ordered to be read a third time, was read the third time, and passed, and a motion to reconsider was laid on the table.

APPOINTMENT OF CONFEREES

Mr. BOEHLERT. Mr. Speaker, I ask unanimous consent that the House insist on its amendment to S. 1281, and request a conference with the Senate thereon.

The SPEAKER pro tempore. Is there objection to the request of the gentleman from New York? The Chair hears none, and without objection, appoints the following conferees:

From the Committee on Science, for consideration of the Senate bill and the House amendment, and modifications committed to conference: Messrs. BOEHLERT, CALVERT, HALL, SMITH of Texas, GORDON, UDALL of COLORADO, and HONDA.

Provided, that Ms. JACKSON-LEE of Texas is appointed in lieu of Mr. HONDA for consideration of sections 111 and 615 of the House amendment, and modifications committed to conference.

From the Committee on Government Reform, for consideration of sections 153 and 606 of the Senate bill, and section 703 of the House amendment, and modifications committed to conference: Messrs. TOM DAVIS of Virginia, TURNER, and WAXMAN.

For consideration of the Senate bill and House amendment, and modifications committed to conference: Mr. DELAY.

BETTY DICK RESIDENCE PROTECTION ACT

Mrs. MUSGRAVE. Mr. Speaker, I ask unanimous consent to take from the Speaker's table the Senate bill (S. 584) to require the Secretary of the Interior to allow the continued occupancy and use of certain land and improvements within Rocky Mountain National Park, and ask for its immediate consideration in the House.

The Clerk read the title of the Senate bill.

The SPEAKER pro tempore. Is there objection to the request of the gentlewoman from Colorado?

Mr. KANJORSKI. Objection.

The SPEAKER pro tempore. Objection is heard.

PREDISASTER MITIGATION PROGRAM REAUTHORIZATION ACT OF 2005

Mr. SHUSTER. Mr. Speaker, I ask unanimous consent that the Committee on Transportation and Infrastructure be discharged from further consideration of the bill (H.R. 4324) to amend the Robert T. Stafford Disaster Relief and Emergency Assistance Act to reauthorize the predisaster mitigation program, and for other purposes, and ask for its immediate consideration.

The Clerk read the title of the bill.

The SPEAKER pro tempore. Is there objection to the request of the gentleman from Pennsylvania?

Mr. KANJORSKI. Objection.

The SPEAKER pro tempore. Objection is heard.

NATIONAL FLOOD INSURANCE PROGRAM FURTHER ENHANCED BORROWING AUTHORITY ACT OF 2005

Mr. OXLEY. Mr. Speaker, I ask unanimous consent that it be in order to consider a motion to take from the Speaker's table the bill (H.R. 4133) to temporarily increase the borrowing authority of the Federal Emergency Management Agency for carrying out the national flood insurance program, with Senate amendments thereto, and concur therein, and that the motion be debatable for not to exceed 20 minutes, equally divided between myself and the gentleman from Massachusetts (Mr. FRANK).

The Clerk read the title of the bill.

The Clerk read the Senate amendments, as follows:

Senate amendments:

On page 2, line 12, strike ''8,500,000,000'' and insert ''18,500,000,000''.

On page 2, after line 12, insert:

SEC. 3. EMERGENCY SPENDING.

The amendment made under section 2 is designated as emergency spending, as provided under section 402 of H. Con. Res. 95 (109th Congress).

The SPEAKER pro tempore. Is there objection to the request of the gentleman from Ohio?

There was no objection.

The SPEAKER pro tempore. The gentleman from Ohio (Mr. OXLEY) and the gentleman from Massachusetts (Mr. FRANK) each will control 10 minutes.