

S 1281

National Aeronautics and Space Administration Authorization Act of 2005

**Congress:** 109 (2005–2007, Ended)

**Chamber:** Senate

**Policy Area:** Science, Technology, Communications

**Introduced:** Jun 21, 2005

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**Law:** 109-155 (Enacted Dec 30, 2005)

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Sponsor

**Name:** Sen. Hutchison, Kay Bailey [R-TX]

**Party:** Republican • **State:** TX • **Chamber:** Senate

Cosponsors (4 total)

Cosponsor	Party / State	Role	Date Joined
Sen. Nelson, Bill [D-FL]	D · FL		Jun 21, 2005
Sen. Inouye, Daniel K. [D-HI]	D · HI		Jun 22, 2005
Sen. Stevens, Ted [R-AK]	R · AK		Jun 22, 2005
Sen. Lott, Trent [R-MS]	R · MS		Jul 21, 2005

Committee Activity

Committee	Chamber	Activity	Date
Commerce, Science, and Transportation Committee	Senate	Reported By	Jul 26, 2005

Subjects & Policy Tags

Policy Area:

Science, Technology, Communications

Related Bills

Bill	Relationship	Last Action
109 HCONRES 324	Related bill	<b>Dec 22, 2005:</b> Message on Senate action sent to the House.
109 HR 3250	Related bill	<b>Jul 27, 2005:</b> Referred to the Subcommittee on Space and Aeronautics.
109 HR 3070	Procedurally related	<b>Jul 25, 2005:</b> Received in the Senate and Read twice and referred to the Committee on Commerce, Science, and Transportation.

National Aeronautics and Space Administration Authorization Act of 2005 - **Title I: General Principles and Reports** - (Sec. 101) Directs the Administrator of the National Aeronautics and Space Administration (NASA) to ensure that NASA carries out a balanced set of programs that include: (1) human space flight; (2) aeronautics research and development; and (3) scientific research.

Directs the Administrator to establish a program to develop a sustained human presence on the moon, including a robust precursor program, to promote exploration, science, commerce, and U.S. prominence in space, and as a stepping-stone to future exploration of Mars and other destinations. Authorizes the Administrator to develop and conduct appropriate international collaboration in pursuit of these goals.

Requires the Administrator to manage human space flight programs to strive to achieve: (1) returning Americans to the moon by 2020; (2) launching the Crew Exploration Vehicle as close to 2010 as possible; (3) increasing knowledge of the impacts of long stays in space on the human body using the most appropriate facilities available, including the International Space Station (ISS); and (4) enabling humans to land on and return from Mars and other destinations.

Directs the President, through a designated official, to develop a national aeronautics policy to guide U.S. aeronautics research and development programs through 2020, which shall include: (1) national goals for aeronautics research and development and to describe the role and responsibilities of each federal agency that will carry out the policy; and (2) priority areas of research through FY2011. Requires the development of the policy to utilize external studies that have been conducted on the state of U.S. aeronautics and aviation research and development and that have suggested policies to ensure continued competitiveness.

Requires the Administrator, at the time the President's FY2007 budget is transmitted to Congress, to transmit a report on the proposed NASA aeronautics budget.

Directs the Administrator to develop: (1) a plan to guide NASA science programs through 2016 which includes addressing plans for a human mission to repair the Hubble Space Telescope; and (2) a plan for managing NASA's facilities through FY2015.

Directs the Administrator to develop a human capital strategy through FY2011 to ensure that NASA has an appropriate workforce to carry out NASA programs. Instructs NASA, under the strategy, to utilize current personnel, to the maximum extent feasible, in implementing the vision for space exploration and NASA's other programs. Requires NASA to provide a draft of the strategy to its federal employee unions for a 30-day consultation period. Prohibits NASA from implementing any Reduction in Force (RIF) or other involuntary separations (except for cause) prior to March 16, 2007.

Requires the Administrator to study 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.

Describes documents to accompany proposed NASA budgets submitted by the President. Expresses the sense of Congress that each U.S. budget submitted to Congress after 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.

Requires NASA to make available: (1) information on corporate and center general and administrative costs and service pool costs; and (2) the figures on the amount of unobligated funds and unexpended funds, by appropriations account.

Requires the Director of the Office of Science and Technology Policy to commission an independent review of the nation's long-term strategic needs for aeronautics test facilities. Requires that such review take into consideration the results of a Department of Defense (DOD) study on DOD's plans to provide the required funding to pursue a development program for transition of hypersonic technologies to an integrated demonstration system that validates their affordability and effectiveness to support prompt global strike and assured space missions. Prohibits the Administrator from closing or mothballing any aeronautical test facilities identified in a specified 2003 independent assessment by the RAND Corporation as being part of the minimum set of those facilities necessary to retain and serve national needs, or any aeronautics simulators, that were in use as of January 1, 2004, subject to stated stipulations.

(Sec. 102) Directs the Administrator to implement, by May 1, 2006, a national awareness campaign through various media to articulate missions, publicize recent accomplishments, and facilitate efforts to encourage young Americans to enter the fields of science, mathematics, and engineering to help maintain U.S. leadership in those fields.

Directs the Administrator to transmit, by April 30, 2006, a report describing: (1) the expected cost of the Crew Exploration Vehicle through FY2020; and (2) the expected budgets for each fiscal year through FY2020 for human spaceflight, aeronautics, space science, and earth science.

Directs the Administrator to 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.

Requires the Administrator and the Director of the Department of Energy Office of Science to report on plans for a Joint Dark Energy Mission.

Requires the Director of the Office of Science and Technology Policy to conduct a study to determine: (1) if any NASA research and development programs are unnecessarily duplicating aspects of programs of other federal agencies; and (2) if any such programs are neglecting any topics of national interest that are related to the mission of NASA. Allows such Director to contract with a nongovernmental entity to conduct such study.

(Sec. 103) Prohibits NASA from contracting for the development phase of a major program unless the Administrator determines that certain risk management requirements are met. Bars the Administrator from delegating such determination requirement, except in cases in which the Administrator has a conflict of interest.

Requires the Administrator to transmit annually a report that includes specified information for each major program on which NASA proposes to spend funds. Requires an initial baseline report. Sets forth requirements for the notification and determination of: (1) the development cost of a major program that is likely to exceed the estimate provided in the baseline report for the program by thresholds of 15% or more; or (2) a program milestone that is likely to be delayed by six months or more. Establishes, in addition, requirements for programs when costs will exceed 30%.

(Sec. 104) Authorizes NASA to award competitive cash prizes to stimulate innovation in research, technology development, and prototype demonstration that have the potential for application to NASA space and aeronautical activities.

(Sec. 105) Prohibits NASA from: (1) launching a payload on a foreign launch vehicle, except in accordance with the Space Transportation Policy announced by the President on December 21, 2004; and (2) launching a payload on a foreign launch vehicle unless NASA commenced the interagency coordination required by the Policy at least 90 days before entering into a development contract for the payload. States that the first prohibition in this section shall not be construed to prevent the President from waiving such Policy. Prohibits the application of this section to any payload for

which development has begun prior to enactment of this Act, including the James Webb Space Telescope.

(Sec. 106) Amends the National Aeronautics and Space Administration Authorization Act, 1968 to: (1) include coverage evaluating NASA's compliance with the return-to-flight and continue-to-fly recommendations of the Columbia Accident Investigation Board as part of the review of safety studies and operations plans by the Aerospace Safety Advisory Panel; (2) provide for the Panel to advise Congress (currently, just the Administrator); (3) require the Panel to advise Congress and the Administrator with respect to management and culture related to safety; and (4) require the Panel to submit annual reports, including in the first report an evaluation of NASA's management and culture related to safety. Requires each annual report to include an evaluation of NASA's compliance with the recommendations of the Board through retirement of the Space Shuttle.

(Sec. 107) Requires the Administrator to: (1) transmit an implementation plan describing NASA's approach for obtaining, implementing, and sharing lessons learned and best practices for its major programs and projects; and (2) 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 have not demonstrated use of those resources.

(Sec. 108) Requires the Administrator to develop a commercialization plan to: (1) support human missions to the Moon and Mars; (2) support low-Earth orbit activities and Earth science missions and applications; and (3) transfer science research and technology to society. Requires such plan to emphasize the utilization by NASA of advancements made by the private sector in space launch and orbital hardware, and to include opportunities for innovative collaborations between NASA and the private sector.

(Sec. 109) Directs the Administrator to 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.

(Sec. 111) Requires the Administrator to transmit a plan describing steps to be taken by NASA to protect from retaliation NASA employees who raise concerns about substantial and specific dangers to public health and safety or about substantial and specific factors that could threaten the success of a mission.

**Title II: Authorization of Appropriations** - (Sec. 201) Specifies a structure for NASA budget accounts. Allows the Administrator to transfer amounts among accounts for the immediate costs of recovering from damage caused by a major disaster or by an act of terrorism, or for the immediate costs associated with an emergency rescue of astronauts.

(Sec. 202) Authorizes appropriations to NASA for FY2007-FY2008 for: (1) science, aeronautics, and education; (2) exploration systems and space operations; and (3) the Office of Inspector General.

(Sec. 204) Instructs the Administrator to allocate at least 15% of the funds budgeted for ISS research to ground-based, free-flyer, and ISS life and microgravity science research that is not directly related to supporting the human exploration program.

(Sec. 205) Directs the Administrator to 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. Requires, in planning and budgeting, the establishment of a funding account that shall be used for all test facilities.

(Sec. 206) Sets a limit on the total amounts appropriated pursuant to this Act that may be used in any fiscal year for official reception and representation expenses.

(Sec. 207) Requires the Administrator to transmit a report providing the current expected development costs of the ISS and describing any changes to those costs that have occurred because of the grounding of the Space Shuttle after the loss of the Space Shuttle Columbia and because of implementation of full-cost accounting. Amends the National Aeronautics and Space Administration Authorization Act of 2000 to repeal, 30 days after transmittal of such report, cost limitations for the ISS.

**Title III: Science - Subtitle A: General Provisions** - (Sec. 301) Requires the performance of each division in the Science directorate of NASA to be reviewed and assessed by the National Academy of Sciences at five-year intervals.

(Sec. 302) Expresses the sense of Congress with respect to a servicing mission for the Hubble Space Telescope. Requires the Administrator: (1) upon successful completion of the planned return-to-flight schedule of the Space Shuttle, to determine the schedule for a Space Shuttle servicing mission to the Hubble, unless such a mission would compromise astronaut safety; and (2) not later than 60 days after the landing of the second Space Shuttle mission for return-to-flight certification, to transmit a status report on plans for a Hubble servicing mission.

(Sec. 303) Directs the Administrator to seek an independent assessment of the costs as well as the risks associated with incorporating the Landsat instrument on the first National Polar-Orbiting Operational Environmental Satellite System spacecraft compared with undertaking various alternatives. Requires the Administrator, if NASA cancels such plans, to: (1) inform specified congressional committees of the cancellation; and (2) transmit a plan for undertaking a dedicated gap-filler mission or alternative means for ensuring the continuity of Landsat data, which shall include consideration of a low-cost constellation of small satellites.

(Sec. 304) Directs the Administrator to carry out biennial reviews within each of the science divisions to assess the costs and benefits of extending the date for terminating data collection for those missions that have exceeded their planned mission lifetime. Requires that assessments be carried out for the FAST, TIMED, Cluster, Wind, Geotail, Polar, TRACE, Ulysses, and Voyager missions.

(Sec. 305) Directs the Administrator to: (1) transmit the research plan for NASA utilization of the ISS and the proposed final configuration of the ISS required by section 506 of this Act; and (2) carry out specified microgravity research activities.

(Sec. 306) Directs the Administrator and the Administrator of the National Oceanic and Atmospheric Administration (NOAA) to appoint a Joint Working Group, which shall review and monitor missions of NASA and NOAA to ensure maximum coordination of the design, operation, and transition of missions, where appropriate. Requires such Administrators to transmit annual reports on how NASA and NOAA earth science programs will be coordinated.

Directs the Administrator, in conjunction with the NOAA Administrator and in consultation with other relevant agencies, to evaluate relevant NASA science missions for their potential operational capabilities and to prepare transition plans for the existing and future Earth observing systems found to have such potential capabilities. Bars the transfer of any NASA earth science mission or Earth observing system to NOAA until the plan has been approved and until financial resources have been identified to support the transition or transfer in the President's budget request for NOAA.

(Sec. 307) Directs the Administrator to review the policies, processes, and procedures (including the peer review process) in the planning and management of applications research and development implemented in 2001 to 2005 within the Headquarters Earth-Sun System Applied Sciences Program and former Earth Science Applications Program.

**Subtitle B: Remote Sensing** - (Sec. 312) Directs the Administrator to: (1) develop a sustained relationship with the U.S.

commercial remote sensing industry and rely on their services; and (2) in conjunction with U.S. industry and universities, research, develop, and demonstrate prototype earth science applications to enhance federal, state, local, and tribal governments' use of government and commercial remote sensing data, technologies, and other sources of geospatial information for improved decision support to address their needs.

(Sec. 313) Directs the Administrator to establish: (1) a grant program for 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; and (2) an advisory committee to monitor such grant program.

(Sec. 316) Directs the Administrator to establish an educational out-reach 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 and awareness of the need for geospatial workforce development.

**Subtitle C: George E. Brown, Jr. Near-Earth Object Survey** - (Sec. 321) George E. Brown, Jr. Near-Earth Object Survey Act - Directs the Administrator to implement a Near-Earth object survey program to detect, track, catalogue, and characterize the physical characteristics of near-Earth objects (certain asteroids or comets) equal to or greater than 100 meters in diameter in order to assess their threat to the Earth.

**Title IV: Aeronautics - Subtitle A: Governmental Interest in Aeronautics Research and Development** - (Sec. 411) Declares that Congress reaffirms the national commitment to aeronautics research made in the National Aeronautics and Space Act of 1958. States that aeronautics research and development remains a core mission of NASA and that NASA is the lead agency for civil aeronautics research. Directs the U.S. government to promote aeronautics 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 U.S. leadership in global aviation.

**Subtitle B: High Priority Aeronautics Research and Development Programs** - (Sec. 421) Directs the Administrator to establish a program of long-term fundamental research in aeronautical sciences and technologies. Requires the Administrator to conduct such program in part by awarding grants to institutions of higher education. Instructs the Administrator to encourage the participation of institutions of higher education located in states that participate in the Experimental Program to Stimulate Competitive Research. Requires all grants to institutions of higher education under this section to be awarded through merit review.

Directs the Administrator to: (1) arrange 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 workforce and research facilities commensurate with those requirements; and (2) transmit such assessment, along with NASA's response to it, to Congress.

(Sec. 422) Authorizes the Administrator to establish specified research and technology programs.

(Sec. 423) Requires the Airspace Systems Research program to pursue research and development to enable modernization of the National Airspace System, as well as to enable the introduction of new systems for vehicles that can take advantage of a modern air transportation system. Instructs the Administrator to align program projects so that they directly support the Joint Planning and Development Office's Next Generation Air Transportation System Integrated Plan.

(Sec. 424) Requires the Aviation Safety and Security Research program to 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. Directs the Administrator to align program projects so that they directly support the objectives of such Plan.

(Sec. 425) Authorizes the Administrator to carry out a collaborative research program with NOAA on convective weather events to significantly improve the reliability of two-hour to six-hour aviation weather forecasts.

(Sec. 426) Directs the Administrator to arrange with the National Research Council for an assessment of federal wake turbulence research and development programs.

(Sec. 427) Authorizes the Administrator to award grants to institutions of higher education to establish one or more Centers for Research on Aviation Training under cooperative agreements with appropriate NASA Centers to investigate the impact of new technologies and procedures on training requirements for pilots and air traffic controllers.

**Subtitle C: Scholarships** - (Sec. 431) Directs the Administrator to establish a scholarship program for full-time graduate students who are U.S. citizens in accredited Masters degree programs in aeronautical engineering or equivalent programs.

**Subtitle D: Data Requests** - (Sec. 441) Directs the Administrator to make available satellite imagery and aerial photography of remote terrain that NASA owns to the Administrator of the Federal Aviation Administration (FAA) or the Director of the Five Star Medallion Program to assist and train pilots in navigating challenging topographical features of such terrain.

**Title V: Human Space Flight** - (Sec. 501) Declares that it is U.S. policy to possess the capability for human access to space on a continuous basis.

Directs the Administrator to transmit a report describing the progress being made toward developing the Crew Exploration Vehicle and the Crew Launch Vehicle and the estimated time before they will demonstrate crewed, orbital spaceflight.

Requires the Administrator, if one year before the final planned flight of the Space Shuttle orbiter the United States has not demonstrated a replacement human space flight system and cannot uphold the policy described in this section, to transmit a report describing: (1) strategic risks to the United States associated with the failure to uphold such policy; (2) the estimated length of time during which the United States will not have its own 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.

(Sec. 502) Directs the Administrator to use the resources of the Space Shuttle program in developing the Crew Exploration Vehicle, Crew Launch Vehicle, and a heavy lift launch vehicle. Requires transmission of a plan describing how NASA will proceed with its human space flight programs. Directs the Administrator to develop a transition plan for any federal and contractor personnel engaged in the Space Shuttle program who can no longer be retained because of the retirement of the Space Shuttle. Requires the plan to include, among other things, assurances that there will be an appropriate complement of employees to allow for the safest possible use of the Space Shuttle through its final flight.

(Sec. 503) Directs the Administrator to: (1) construct an architecture and implementation plan for NASA's human exploration program; (2) implement an exploration technology development program to enable lunar human and robotic operations, including the surface power to use on the moon and other locations; (3) conduct an in-situ resource utilization technology program to develop the capability to use space resources to increase independence from Earth, and sustain exploration beyond low-Earth orbit; and (4) pursue aggressively automated rendezvous and docking capabilities that can support the ISS and other mission requirements.

(Sec. 504) Authorizes the Administrator to establish a ground-based analog capability in remote U.S. locations to assist in the development of lunar operations, life support, and in-situ resource utilization experience and capabilities.

(Sec. 505) Declares that it is U.S. policy to achieve diverse and growing utilization of, and benefits from, the ISS. Requires the Administrator to ensure that the ISS will be able to meet specified elements, capabilities, and configuration.

Instructs the Administrator to ensure that the ISS can have available, if needed, sufficient logistics and on-orbit capabilities to support a period during which the Space Shuttle or its follow-on crew and cargo systems are unavailable. Requires the Administrator, before making any change in the ISS assembly sequence, to transmit a plan to carry out such policy.

(Sec. 506) Directs the Administrator to: (1) carry out a program of microgravity research; (2) consider the need for a life sciences centrifuge and any associated holding facilities; and (3) transmit the research plan for NASA utilization of the ISS and the proposed final configuration of the ISS, which shall include specified elements.

(Sec. 507) Designates the U.S. segment of the ISS as a national laboratory in order to further the policy described in section 501 of this Act. Directs the Administrator to seek to increase the utilization of the ISS by other federal entities and the private sector. Allows the Administrator to contract with a nongovernmental entity to operate the ISS national laboratory. Requires transmittal of a plan describing how such national laboratory will operated.

**Title VI: Other Program Areas - Subtitle A: Space and Flight Support** - (Sec. 601) Directs the Administrator, in conjunction with the heads of other federal agencies, to take steps to develop or acquire technologies that will enable NASA to decrease the risks associated with orbital debris.

(Sec. 602) Directs the Administrator to provide the capabilities to support secondary payload flight opportunities on U.S. launch vehicles, or free flyers, for satellites or scientific payloads weighing less than 500 kilograms.

Requires the Administrator to initiate a feasibility study for designating a National Free Flyer Launch Coordination Center to coordinate, consolidate, and integrate secondary launch capabilities, launch opportunities, and payloads. Sets forth study requirements.

**Subtitle B: Education** - (Sec. 611) Amends the Department of Veterans Affairs and Housing and Urban Development, and Independent Agencies Appropriations Act, 1990 to include coverage of specified minority institutions under requirements for the award of prime and subcontracts by NASA to small businesses and disadvantaged individuals.

(Sec. 612) Directs the Administrator to 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.

(Sec. 613) Charles "Pete" Conrad Astronomy Awards Act - Directs the Administrator to establish the Charles "Pete" Conrad Astronomy Awards Program. Requires the Administrator to make an annual award under such program of: (1) \$3,000 to the amateur astronomer or group of amateur astronomers who discovered the intrinsically brightest near-Earth asteroid among the Near-Earth asteroids that were discovered by such astronomers or groups; and (2) \$3,000 to the amateur astronomer or group of amateur astronomers who made the greatest contribution to the mission of the Minor Planet Center of the Smithsonian Astrophysical Observatory to catalog near-Earth asteroids.

(Sec. 614) Directs the Administrator to arrange with the National Research Council to evaluate NASA's precollege science, technology, and mathematics education program.



(Sec. 615) Requires the Administrator to submit a report on efforts to ensure equal access for minority and economically disadvantaged students to NASA's education programs. Sets forth report requirements.

Directs the Administrator establish the Dr. Mae C. Jemison Grant Program to work with minority serving institutions to bring more women of color into the field of space and aeronautics.

(Sec. 616) Allows the Administrator to 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) Requires: (1) the Administrator to transmit a report on the legal status of the Motivating Undergraduates in Science and Technology (MUST) program; and (2) if such program is in compliance with U.S. laws, NASA to implement the program, as planned in the July 5, 2005, NASA Research Announcement.

(Sec. 618) Instructs the Administrator, from amounts appropriated to NASA for education programs, to ensure continuation of the Space Grant Program, the Experimental Program to Stimulate Competitive Research, and the NASA Explorer School program to motivate and develop the next generation of explorers.

(Sec. 619) Directs the Administrator to transmit a report describing action taken by NASA to implement the recommendations contained in the Government Accountability Office (GAO) Report No. 04-639. Requires the Administrator to conduct compliance reviews of at least two grantees annually in order to comply with title IX of the Education Amendments of 1972.

**Subtitle C: Technology Transfer** - (Sec. 621) Directs the Administrator to execute a commercial technology transfer program to facilitate the exchange services, products, and intellectual property between NASA and the private sector. Requires that this program place at least as much emphasis on encouraging the transfer of NASA technology to the private sector ("spinning out") as on encouraging use of private sector technology by NASA.

**Title VII: Miscellaneous Provisions - Subtitle A: National Aeronautics and Space Administration** - (Sec. 701) Allows the Administrator to relinquish to a state all or part of U.S. legislative jurisdiction over lands or interests under the Administrator's control in such state.

(Sec. 702) Amends the National Aeronautics and Space Act of 1958 to extend through December 31, 2010, the authority for the Administrator to provide liability insurance for, or indemnification to, the developer of an experimental aerospace vehicle developed or used in execution of an agreement between NASA and the developer.

(Sec. 703) Repeals the four year limitation on the service obligation of recipients of a National Aeronautics and Space Administration Science and Technology Scholarship. Modifies the formula for calculating the amount for which recipients shall be liable if they breach their agreements.

(Sec. 704) Amends the the National Aeronautics and Space Act of 1958 to require the Administrator, before any funds may be obligated for implementation of a project that is projected to cost more than \$250 million, to conduct and consider an independent life-cycle cost analysis and to report the results to Congress. Defines implementation.

(Sec. 705) Authorizes the Administrator, when there is an accident or mishap resulting in the death of a crewmember of a NASA human space flight vehicle, to take control over the crewmember's remains and order autopsies and other tests. Requires: (1) each crewmember to provide the Administrator with preferences regarding the treatment accorded his or her remains; and (2) the Administrator to respect those stated preferences. Prohibits anything in this section from being

construed to permit the Administrator to interfere with any federal investigation of a mishap or accident.

(Sec. 706) Amends the National Aeronautics and Space Administration Authorization Act of 2000 to: (1) require semiannual reporting (currently, bimonthly, until October 1, 2006) on whether or not the Russians have performed work expected of them necessary to complete the International Space Station; (2) require each such report to identify each Russian entity or person to whom NASA has, since the date of enactment of the Iran Nonproliferation Amendments Act of 2005, made a payment in cash or in-kind for work to be performed or services to be rendered under the Agreement Concerning Cooperation on the Civil International Space Station, or any protocol, agreement, memorandum of understanding, or contract related thereto. Requires each report to include the specific purpose of each payment made to each entity or person identified in the report.

Amends the Federal Aviation Administration Research, Engineering, and Development Authorization Act of 1992 to extend to 2010 the deadline for development of technologies for subsonic jet aircraft engines and airframes permitting a subsonic jet aircraft to operate at reduced noise levels.

Amends the National Aeronautics and Space Administration Authorization Act of 2000 to repeal requirements concerning the engineering study of the modifications necessary for the more effective use of the WB-57 flight research plan.

(Sec. 707) Directs the Administrator, in consultation with the Small Business Administration (SBA), to develop a plan to maximize the number and amount of contracts awarded to small business concerns and to meet established contracting goals for such concerns.

Requires the Administrator to establish, as a priority, meeting the contracting goals developed in conjunction with the SBA to maximize the amount of prime contracts awarded each fiscal year by NASA to small business concerns.

(Sec. 708) Requires the Administrator to develop a plan to better understand the longitudinal health effects of space flight on humans. Instructs the Administrator to consider the need for the establishment of a lifetime healthcare program for NASA astronauts and their families or other methods to obtain needed health data from astronauts and retired astronauts.

(Sec. 709) Requires the Administrator to submit annual reports on the contracts and subcontracts performed overseas and amount of purchases directly or indirectly by NASA from foreign entities.

(Sec. 710) Requires GAO to transmit a review of NASA's enhanced use leasing pilot program. Requires, at a minimum, for such review to analyze: (1) the financial impact of the program; (2) the program's use and effectiveness; and (3) whether the arrangements made under the program would have been made in the absence of the program.

**Subtitle B: National Science Foundation** - (Sec. 721) Directs the National Science Foundation (NSF) to continue to collect statistically reliable data on the field of degree of college-educated individuals to fulfill obligations under the National Science Foundation Act of 1950 regarding submission by the National Science Board of its report on indicators of the state of science and engineering in the United States. Requires specified congressional committees to be informed if the Director of the NSF determines that there is a legal impediment to the continued collection of such data.

(Sec. 722) Requires the NSF Director to charge the Mathematical and Physical Sciences Advisory Committee with conducting a review of the astronomical facilities supported by NSF to determine the appropriate balance between supporting the operation of existing facilities and supporting the design, development, and eventual operation of new facilities. Instructs that such review recommend actions that would enable NSF to support priorities recommended in

specified National Academy of Sciences reports.

Requires the NSF Director to develop a plan to facilitate more thorough design and development of facilities that can be considered for funding through the Major Research Equipment and Facilities Construction account.

**Title VIII: Task Force and Commission - Subtitle A: International Space Station Independent Safety Task Force -**

(Sec. 801) Directs the Administrator to establish an independent task force to review that International Space Station program with the objective of discovering and assessing any vulnerabilities of the ISS that could lead to its destruction, compromise the health of its crew, or necessitate its premature abandonment.

**Subtitle B: Human Space Flight Independent Investigation Commission -** (Sec. 822) Directs the President to establish an independent, nonpartisan Commission to investigate any incident that results in the loss of: (1) a Space Shuttle; (2) the ISS or its operational viability; (3) any other U.S. space vehicle carrying humans; or (4) a crew member or passenger of any such space vehicle.

## Actions Timeline

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- **Dec 30, 2005:** Signed by President.
- **Dec 30, 2005:** Signed by President.
- **Dec 30, 2005:** Became Public Law No: 109-155.
- **Dec 30, 2005:** Became Public Law No: 109-155.
- **Dec 23, 2005:** Presented to President.
- **Dec 23, 2005:** Presented to President.
- **Dec 22, 2005:** Conference report agreed to in Senate: Senate agreed to conference report by Unanimous Consent.(consideration: CR S14405-14407)
- **Dec 22, 2005:** Senate agreed to conference report by Unanimous Consent. (consideration: CR S14405-14407)
- **Dec 22, 2005:** Pursuant to the provisions of H. Con. Res. 324, enrollment corrections on S. 1281 have been made.
- **Dec 22, 2005:** Message on Senate action sent to the House.
- **Dec 22, 2005:** Cleared for White House.
- **Dec 17, 2005:** Mr. Boehlert moved to suspend the rules and agree to the conference report, H. Rept. 109-354. (consideration: CR H12129-12135)
- **Dec 17, 2005:** DEBATE - The House proceeded with forty minutes of debate on the motion to suspend the rules and agree to the conference report to accompany S. 1281.
- **Dec 17, 2005:** Conference report agreed to in House: On motion to suspend the rules and agree to the conference report Agreed to by voice vote.
- **Dec 17, 2005:** Motions to reconsider laid on the table Agreed to without objection.
- **Dec 17, 2005:** On motion to suspend the rules and agree to the conference report Agreed to by voice vote.
- **Dec 17, 2005:** Conference papers: Senate report and manager's statement and message on House action held at the desk in Senate.
- **Dec 16, 2005:** Conference report filed: Conference report H. Rept. 109-354 filed.(text of conference report: CR H12015-12031)
- **Dec 16, 2005:** Conference report H. Rept. 109-354 filed. (text of conference report: CR H12015-12031)
- **Dec 15, 2005:** Conference committee actions: Conferees agreed to file conference report.
- **Dec 15, 2005:** Conferees agreed to file conference report.
- **Dec 13, 2005:** Message on Senate action sent to the House.
- **Dec 12, 2005:** Message on House action received in Senate and at desk: House amendment to Senate bill.
- **Dec 12, 2005:** Senate disagreed to House amendment, agreed to request for conference, and appointed conferees. Stevens; Lott; Hutchison; Inouye; Nelson FL. (consideration: CR S13457)
- **Nov 18, 2005:** Mr. Boehlert asked unanimous consent to take from the Speaker's table and consider.
- **Nov 18, 2005:** Considered by unanimous consent. (consideration: CR H10971-10991)
- **Nov 18, 2005:** The House struck all after the enacting clause and inserted in lieu thereof the provisions of a similar measure H.R. 3070. Agreed to without objection.
- **Nov 18, 2005:** Passed/agreed to in House: On passage Passed without objection.(text: CR H10979-10991)
- **Nov 18, 2005:** On passage Passed without objection. (text: CR H10979-10991)
- **Nov 18, 2005:** Motion to reconsider laid on the table Agreed to without objection.
- **Nov 18, 2005:** Mr. Boehlert asked unanimous consent that the House insist upon its amendment, and request a conference.
- **Nov 18, 2005:** On motion that the House insist upon its amendment, and request a conference Agreed to without objection.
- **Nov 18, 2005:** The Speaker appointed conferees - from the Committee on Science for consideration of the Senate bill and the House amendment, and modifications committed to conference: Boehlert, Calvert, Hall, Smith (TX), Gordon, Udall (CO), and Honda.
- **Nov 18, 2005:** The Speaker appointed conferees Provided, that Ms. Jackson-Lee (TX) is appointed in lieu of Mr. Honda for consideration of secs. 111 and 615 of the House amendment, and modifications committed to conference.
- **Nov 18, 2005:** The Speaker appointed conferees - from the Committee on Government Reform for consideration of secs. 153 and 606 of the Senate bill, and sec. 703 of the House amendment, and modifications committed to conference: Davis, Tom, Turner, and Waxman.
- **Nov 18, 2005:** The Speaker appointed a conferee for consideration of the Senate bill and House amendment, and

modifications committed to conference: DeLay.

- **Sep 28, 2005:** Measure laid before Senate by unanimous consent. (consideration: CR S10610-10620)
- **Sep 28, 2005:** Passed/agreed to in Senate: Passed Senate with amendments by Unanimous Consent.(text: CR S10614-10620)
- **Sep 28, 2005:** Passed Senate with amendments by Unanimous Consent. (text: CR S10614-10620)
- **Sep 28, 2005:** Received in the House.
- **Sep 28, 2005:** Held at the desk.
- **Sep 28, 2005:** Message on Senate action sent to the House.
- **Jul 26, 2005:** Committee on Commerce, Science, and Transportation. Reported by Senator Stevens with amendments. With written report No. 109-108.
- **Jul 26, 2005:** Committee on Commerce, Science, and Transportation. Reported by Senator Stevens with amendments. With written report No. 109-108.
- **Jul 26, 2005:** Placed on Senate Legislative Calendar under General Orders. Calendar No. 174.
- **Jun 23, 2005:** Committee on Commerce, Science, and Transportation. Ordered to be reported with amendments favorably.
- **Jun 21, 2005:** Introduced in Senate
- **Jun 21, 2005:** Sponsor introductory remarks on measure. (CR S6925-6926)
- **Jun 21, 2005:** Read twice and referred to the Committee on Commerce, Science, and Transportation. (text of measure as introduced: CR S6926-6932)