

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 December 30, 2005.

(3) EMISSIONS.—Nitrogen oxides on take-off and landing that are significantly reduced, without adversely affecting hydrocarbons and smoke, relative to aircraft in commercial service as of December 30, 2005.

(Pub. L. 111–314, § 3, Dec. 18, 2010, 124 Stat. 3390.)

HISTORICAL AND REVISION NOTES

Revised Section	Source (U.S. Code)	Source (Statutes at Large)
40701	42 U.S.C. 16722(a).	Pub. L. 109–155, title IV, § 422(a), Dec. 30, 2005, 119 Stat. 2924.

In paragraphs (2) and (3), the date “December 30, 2005” is substituted for “the date of enactment of this Act” to reflect the date of enactment of the National Aeronautics and Space Administration Authorization Act of 2005 (Public Law 109–155, 119 Stat. 2895).

§ 40702. Additional research and development initiative

The Administrator shall establish an initiative involving the Administration, universities, industry, and other research organizations as appropriate, of research, development, and demonstration, in a relevant environment, of technologies to enable the following commercial aircraft performance characteristics:

(1) NOISE LEVELS.—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, without increasing energy consumption or nitrogen oxide emissions compared to aircraft in commercial service as of October 15, 2008.

(2) GREENHOUSE GAS EMISSIONS.—Significant reductions in greenhouse gas emissions compared to aircraft in commercial services as of October 15, 2008.

(Pub. L. 111–314, § 3, Dec. 18, 2010, 124 Stat. 3390.)

HISTORICAL AND REVISION NOTES

Revised Section	Source (U.S. Code)	Source (Statutes at Large)
40702	42 U.S.C. 17721.	Pub. L. 110–422, title III, § 302, Oct. 15, 2008, 122 Stat. 4786.

In paragraphs (1) and (2), the date “October 15, 2008” is substituted for “the date of enactment of this Act” to reflect the date of enactment of the National Aeronautics and Space Administration Authorization Act of 2008 (Public Law 110–422, 122 Stat. 4779).

§ 40703. Research alignment

In addition to pursuing the research and development initiative described in section 40702 of this title, the Administrator shall, to the maximum extent practicable within available funding, align the fundamental aeronautics research

program to address high priority technology challenges of the National Academies’ Decadal Survey of Civil Aeronautics, and shall work to increase the degree of involvement of external organizations, and especially of universities, in the fundamental aeronautics research program.

(Pub. L. 111–314, § 3, Dec. 18, 2010, 124 Stat. 3390.)

HISTORICAL AND REVISION NOTES

Revised Section	Source (U.S. Code)	Source (Statutes at Large)
40703	42 U.S.C. 17722.	Pub. L. 110–422, title III, § 303, Oct. 15, 2008, 122 Stat. 4787.

§ 40704. Research program on perceived impact of sonic booms

(a) ESTABLISHMENT.—The Administrator shall establish a cooperative research program with industry, including the conduct of flight demonstrations in a relevant environment, to collect data on the perceived impact of sonic booms. The data could enable the promulgation of appropriate standards for overland commercial supersonic flight operations.

(b) COORDINATION.—The Administrator shall ensure that sonic boom research is coordinated as appropriate with the Administrator of the Federal Aviation Administration, and as appropriate make use of the expertise of the Partnership for Air Transportation Noise and Emissions Reduction Center of Excellence sponsored by the Administration and the Federal Aviation Administration.

(Pub. L. 111–314, § 3, Dec. 18, 2010, 124 Stat. 3391.)

HISTORICAL AND REVISION NOTES

Revised Section	Source (U.S. Code)	Source (Statutes at Large)
40704(a)	42 U.S.C. 17723(b).	Pub. L. 110–422, title III, § 304(b), (c), Oct. 15, 2008, 122 Stat. 4787.
40704(b)	42 U.S.C. 17723(c).	

PURPOSE

Pub. L. 110–422, title III, § 304(a), Oct. 15, 2008, 122 Stat. 4787, provided that: “The ability to fly commercial aircraft over land at supersonic speeds without adverse impacts on the environment or on local communities would open new markets and enable new transportation capabilities. In order to have the basis for establishing appropriate sonic boom standards for such flight operations, a research program is needed to assess the impact in a relevant environment of commercial supersonic flight operations.”

CHAPTER 409—MISCELLANEOUS

- Sec. 40901. Science, Space, and Technology Education Trust Fund.
- 40902. National Aeronautics and Space Administration Endeavor Teacher Fellowship Trust Fund.
- 40903. Experimental Program to Stimulate Competitive Research—merit grant competition requirements.
- 40904. Microgravity research.
- 40905. Program to expand distance learning in rural underserved areas.
- 40906. Equal access to the Administration’s education programs.
- 40907. Museums.
- 40908. Continuation of certain education programs.

Sec.

40909. Compliance with title IX of Education Amendments of 1972.

EDUCATION AND OUTREACH

Pub. L. 115-10, title VIII, §824, Mar. 21, 2017, 131 Stat. 64, provided that:

“(a) SENSE OF CONGRESS.—It is the sense of Congress that—

“(1) United States competitiveness in the 21st century requires engaging the science, technology, engineering, and mathematics (referred to in this section as ‘STEM’) talent in all States;

“(2) the [National Aeronautics and Space] Administration is uniquely positioned to educate and inspire students and the broader public on STEM subjects and careers;

“(3) the Administration’s Education and Communication Offices, Mission Directorates, and Centers have been effective in delivering educational content because of the strong engagement of Administration scientists and engineers in the Administration’s education and outreach activities;

“(4) the Administration’s education and outreach programs, including the Experimental Program to Stimulate Competitive Research (EPSCoR) and the Space Grant College and Fellowship Program, reflect the Administration’s successful commitment to growing and diversifying the national science and engineering workforce; and

“(5) in order to grow and diversify the Nation’s engineering workforce, it is vital for the Administration to bolster programs, such as High Schools United with NASA to Create Hardware (HUNCH) program, that conduct outreach activities to underserved rural communities, vocational schools, and tribal colleges and universities and encourage new participation in the STEM workforce.

“(b) CONTINUATION OF EDUCATION AND OUTREACH ACTIVITIES AND PROGRAMS.—

“(1) IN GENERAL.—The Administrator [of the National Aeronautics and Space Administration] shall continue engagement with the public and education opportunities for students via all the Administration’s mission directorates to the maximum extent practicable.

“(2) REPORT.—Not later than 60 days after the date of enactment of this Act [Mar. 21, 2017], the Administrator shall submit to the appropriate committees of Congress [Committee on Commerce, Science, and Transportation of the Senate and Committee on Science, Space, and Technology of the House of Representatives] a report on the Administration’s near-term outreach plans for advancing space law education.”

INSPIRING THE NEXT SPACE PIONEERS, INNOVATORS, RESEARCHERS, AND EXPLORERS (INSPIRE) WOMEN

Pub. L. 115-7, Feb. 28, 2017, 131 Stat. 13, provided that:

“SECTION 1. SHORT TITLE.

“This Act may be cited as the ‘Inspiring the Next Space Pioneers, Innovators, Researchers, and Explorers (INSPIRE) Women Act’.

“SEC. 2. FINDINGS.

“The Congress finds that—

“(1) NASA GIRLS and NASA BOYS are virtual mentoring programs using commercially available video chat programs to pair National Aeronautics and Space Administration mentors with young students anywhere in the country. NASA GIRLS and NASA BOYS give young students the opportunity to interact and learn from real engineers, scientists, and technologists.

“(2) The Aspire to Inspire (A2I) program engages young girls to present science, technology, engineering, and mathematics (STEM) career opportunities through the real lives and jobs of early career women at NASA.

“(3) The Summer Institute in Science, Technology, Engineering, and Research (SISTER) program at the Goddard Space Flight Center is designed to increase awareness of, and provide an opportunity for, female middle school students to be exposed to and explore nontraditional career fields with Goddard Space Flight Center women engineers, mathematicians, scientists, technicians, and researchers.

“SEC. 3. SUPPORTING WOMEN’S INVOLVEMENT IN THE FIELDS OF AEROSPACE AND SPACE EXPLORATION.

“The Administrator of the National Aeronautics and Space Administration shall encourage women and girls to study science, technology, engineering, and mathematics, pursue careers in aerospace, and further advance the Nation’s space science and exploration efforts through support of the following initiatives:

“(1) NASA GIRLS and NASA BOYS.

“(2) Aspire to Inspire.

“(3) Summer Institute in Science, Technology, Engineering, and Research.

“SEC. 4. PLAN.

“Not later than 90 days after the date of enactment of this Act [Feb. 28, 2017], the Administrator shall submit to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a plan for how NASA can best facilitate and support both current and retired astronauts, scientists, engineers, and innovators, including early career female astronauts, scientists, engineers, and innovators, to engage with K-12 female STEM students and inspire the next generation of women to consider participating in the fields of science, technology, engineering, and mathematics and to pursue careers in aerospace. This plan shall—

“(1) report on existing activities with current and retired NASA astronauts, scientists, engineers, and innovators;

“(2) identify how NASA could best leverage existing authorities to facilitate and support current and retired astronaut, scientist, engineer, and innovator participation in NASA outreach efforts;

“(3) propose and describe a program specific to retired astronauts, scientists, engineers, and innovators; and

“(4) identify any additional authorities necessary to institute such a program.”

NASA’S CONTRIBUTION TO EDUCATION

Pub. L. 111-358, title II, §202, Jan. 4, 2011, 124 Stat. 3993, provided that:

“(a) SENSE OF CONGRESS.—It is the sense of Congress that NASA [National Aeronautics and Space Administration] is uniquely positioned to interest students in science, technology, engineering, and mathematics, not only by the example it sets, but through its education programs.

“(b) EDUCATIONAL PROGRAM GOALS.—NASA shall develop and maintain educational programs—

“(1) to carry out and support research based programs and activities designed to increase student interest and participation in STEM, including students from minority and underrepresented groups;

“(2) to improve public literacy in STEM;

“(3) that employ proven strategies and methods for improving student learning and teaching in STEM;

“(4) to provide curriculum support materials and other resources that—

“(A) are designed to be integrated with comprehensive STEM education;

“(B) are aligned with national science education standards;

“(C) promote the adoption and implementation of high-quality education practices that build toward college and career-readiness; and

“(5) to create and support opportunities for enhanced and ongoing professional development for