

search, operations, and activities relating to civilian Earth observation of those Agencies, including NASA, that have active programs that either contribute directly or indirectly to these areas. This mechanism should include the development of a strategic implementation plan that is updated at least every 3 years, and includes a process for external independent advisory input. This plan should include a description of the responsibilities of the various Agency roles in Earth observations, recommended cost-sharing and procurement arrangements between Agencies and other entities, including international arrangements, and a plan for ensuring the provision of sustained, long term space-based climate observations. The Director shall provide a report to Congress within 90 days after October 11, 2010, on the implementation plan for this mechanism.

(Pub. L. 111-267, title VII, § 702, Oct. 11, 2010, 124 Stat. 2830.)

**§ 18372. Transitioning experimental research to operations**

The Administrator shall coordinate with the Administrator of NOAA and the Director of the United States Geological Survey to establish a formal mechanism that plans, coordinates, and supports the transitioning of NASA research findings, assets, and capabilities to NOAA operations and United States Geological Survey operations. In defining this mechanism, NASA should consider the establishment of a formal or informal Interagency Transition Office. The Administrator of NASA shall provide an implementation plan for this mechanism to Congress within 90 days after October 11, 2010.

(Pub. L. 111-267, title VII, § 703, Oct. 11, 2010, 124 Stat. 2830.)

**§ 18373. Decadal Survey missions implementation for Earth observation**

The Administrator shall undertake to implement, as appropriate, missions identified in the National Research Council's Earth Science Decadal Survey within the scope of the funds authorized for the Earth Science Mission Directorate.

(Pub. L. 111-267, title VII, § 704, Oct. 11, 2010, 124 Stat. 2831.)

**§ 18374. Instrument test-beds and venture class missions**

The Administrator shall pursue innovative ways to fly instrument-level payloads for early demonstration or as co-manifested payloads. The Congress encourages the use of the ISS as an accessible platform for the conduct of such activities. Additionally, in order to address the cost and schedule challenges associated with large flight systems, NASA should pursue smaller systems where practicable and warranted.

(Pub. L. 111-267, title VII, § 706, Oct. 11, 2010, 124 Stat. 2831.)

SUBCHAPTER VII—SPACE SCIENCE

**§ 18381. Technology development**

The Administrator shall ensure that the Science Mission Directorate maintains a long

term technology development program for space and Earth science. This effort should be coordinated with an overall Agency technology investment approach, as authorized in section 905 of this Act.

(Pub. L. 111-267, title VIII, § 801, Oct. 11, 2010, 124 Stat. 2832.)

REFERENCES IN TEXT

Section 905 of this Act, referred to in text, is Pub. L. 111-267, title IX, § 905, Oct. 11, 2010, 124 Stat. 2836, which is not classified to the Code.

**§ 18382. Suborbital research activities**

**(a) In general**

The report of the National Academy of Sciences, Revitalizing NASA's Suborbital Program: Advancing Science, Driving Innovation and Developing Workforce, found that suborbital science missions were absolutely critical to building an aerospace workforce capable of meeting the needs of current and future human and robotic space exploration.

**(b) Management**

The Administrator shall designate an officer or employee of the Science Mission Directorate to act as the responsible official for all Suborbital Research in the Science Mission Directorate. The designee shall be responsible for the development of short- and long term strategic plans for maintaining, renewing and extending suborbital facilities and capabilities, monitoring progress towards goals in the plans, and be responsible for integration of suborbital activities and workforce development within the agency, thereby ensuring the long term recognition of their combined value to the directorate, to NASA, and to the Nation.

**(c) Establishment of Suborbital Research Program**

The Administrator shall establish a Suborbital Research Program within the Science Mission Directorate that shall include the use of sounding rockets, aircraft, high altitude balloons, suborbital reusable launch vehicles, and commercial launch vehicles to advance science and train the next generation of scientists and engineers in systems engineering and systems integration which are vital to maintaining critical skills in the aerospace workforce. The program shall integrate existing suborbital research programs with orbital missions at the discretion of the designated officer or employee and shall emphasize the participation of undergraduate and graduate students and post-doctoral researchers when formulating announcements of opportunity.

**(d) Report**

The Administrator shall report to the appropriate committees of Congress on the number and type of suborbital missions conducted in each fiscal year and the number of undergraduate and graduate students participating in the missions. The report shall be made annually for each fiscal year under this section.

**(e) Authorization**

There are authorized to be appropriated to the Administrator such sums as may be necessary to carry out this section.