(2) it is imperative for the United States to retain the skills and the industrial capability to provide a follow-on Space Launch System that is primarily designed for missions beyond near-Earth space, while offering some potential for supplanting shuttle delivery capabilities to low-Earth orbit, particularly in support of ISS requirements, if necessary.

(Pub. L. 111–267, title VI, §601, Oct. 11, 2010, 124 Stat. 2828.)

§ 18362. Retirement of Space Shuttle orbiters and transition of Space Shuttle program

(a) In general

The Administrator shall retire the Space Shuttle orbiters pursuant to a schedule established by the Administrator and in a manner consistent with provisions of this chapter regarding potential requirements for contingency utilization of Space Shuttle orbiters for ISS requirements.

(b) Utilization of workforce and assets in followon Space Launch System

(1) Utilization of vehicle assets

In carrying out subsection (a), the Administrator shall, to the maximum extent practicable, utilize workforce, assets, and infrastructure of the Space Shuttle program in efforts relating to the initiation of a follow-on Space Launch System developed pursuant to section 18322 of this title.

(2) Other assets

With respect to the workforce, assets, and infrastructure not utilized as described in paragraph (1), the Administrator shall work closely with other departments and agencies of the Federal Government, and the private sector, to divest unneeded assets and to assist displaced workers with retraining and other placement efforts. Amounts authorized to be appropriated by section $101(2)(B)^1$ shall be available for activities pursuant to this paragraph.

(Pub. L. 111–267, title VI, §602, Oct. 11, 2010, 124 Stat. 2828.)

REFERENCES IN TEXT

Section 101(2)(B), referred to in subsec. (b)(2), is Pub. L. 111-267, title I, $\S101(2)(B)$, Oct. 11, 2010, 124 Stat. 2809, which is not classified to the Code.

§ 18363. Disposition of orbiter vehicles

(a) In general

Upon the termination of the Space Shuttle program as provided in section 18362 of this title, the Administrator shall decommission any remaining Space Shuttle orbiter vehicles according to established safety and historic preservation procedures prior to their designation as surplus government property. The orbiter vehicles shall be made available and located for display and maintenance through a competitive procedure established pursuant to the disposition plan developed under section 613(a) of the National Aeronautics and Space Administration

(b) Display and maintenance

The orbiter vehicles made available under subsection (a) shall be displayed and maintained through agreements and procedures established pursuant to section 613(a) of the National Aeronautics and Space Administration Authorization Act of 2008 (42 U.S.C. 17761(a)).

(c) Authorization of appropriations

There are authorized to be appropriated to NASA such sums as may be necessary to carry out this section. The amounts authorized to be appropriated by this subsection shall be in addition to any amounts authorized to be appropriated by title I, and may be requested by the President as supplemental requirements, if needed, in the appropriate fiscal years.

(Pub. L. 111–267, title VI, $\S603$, Oct. 11, 2010, 124 Stat. 2829.)

REFERENCES IN TEXT

Section 613(a) of the National Aeronautics and Space Administration Authorization Act of 2008, referred to in subsecs. (a) and (b), is section 613(a) of Pub. L. 110–422, formerly classified to section 17761(a) of this title, which was transferred and is set out as a note under section 70501 of Title 51, National and Commercial Space Programs.

Title I, referred to in subsec. (c), is title I of Pub. L. 111-267, Oct. 11, 2010, 124 Stat. 2809, which is not classified to the Code.

SUBCHAPTER VI—EARTH SCIENCE

§ 18371. Interagency collaboration implementation approach

The Director of OSTP shall establish a mechanism to ensure greater coordination of the research, 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 provi-

Authorization Act of 2008 (42 U.S.C. 17761(a)),1 with priority consideration given to eligible applicants meeting all conditions of that plan which would provide for the display and maintenance of orbiters at locations with the best potential value to the public, including where the location of the orbiters can advance educational opportunities in science, technology, engineering, and mathematics disciplines, and with an historical relationship with either the launch, flight operations, or processing of the Space Shuttle orbiters or the retrieval of NASA manned space vehicles, or significant contributions to human space flight. The Smithsonian Institution, which, as of October 11, 2001, houses the Space Shuttle Enterprise, shall determine any new location for the Enterprise.

¹ See References in Text note below.

¹ See References in Text note below.

sion 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, $\S703$, 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

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, $\S 801$, 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.

(Pub. L. 111–267, title VIII, §802, Oct. 11, 2010, 124 Stat. 2832.)

§ 18383. In-space servicing

The Administrator shall continue to take all necessary steps to ensure that provisions are made for in-space or human servicing and repair of all future observatory-class scientific spacecraft intended to be deployed in Earth-orbit or at a Lagrangian point to the extent practicable and appropriate. The Administrator should en-