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 International Space Station and other mission requirements.

(Pub. L. 111-314, §3, Dec. 18, 2010, 124 Stat. 3430.)

HISTORICAL AND REVISION NOTES

Revised Section	Source (U.S. Code)	Source (Statutes at Large)
70502	42 U.S.C. 16763.	Pub. L. 109–155, title V, §503, Dec. 30, 2005, 119 Stat. 2929.

§ 70503. Ground-based analog capabilities

- (a) IN GENERAL.—The Administrator may 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) ENVIRONMENTAL CHARACTERISTICS.—The Administrator shall select locations for the activities described in subsection (a) 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, or other potential resources).
- (c) INVOLVEMENT OF LOCAL POPULATIONS AND 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.

(Pub. L. 111-314, §3, Dec. 18, 2010, 124 Stat. 3430.)

HISTORICAL AND REVISION NOTES

Revised Section	Source (U.S. Code)	Source (Statutes at Large)
70503	42 U.S.C. 16764.	Pub. L. 109–155, title V, §504, Dec. 30, 2005, 119 Stat. 2929.

§ 70504. Stepping stone approach to exploration

In order to maximize the cost-effectiveness of the long-term exploration and utilization activities of the United States, the Administrator shall take all necessary steps, including engaging international partners, to ensure that activities in its lunar exploration program shall be designed and implemented in a manner that gives strong consideration to how those activities might also help meet the requirements of future exploration and utilization activities beyond the Moon. The timetable of the lunar phase of the long-term international exploration initiative shall be determined by the availability of funding. However, once an exploration-related project enters its development phase, the Administrator shall seek, to the maximum extent practicable, to complete that project without undue delays.

(Pub. L. 111-314, § 3, Dec. 18, 2010, 124 Stat. 3431.)

HISTORICAL AND REVISION NOTES

Revised Section	Source (U.S. Code)	Source (Statutes at Large)
70504	42 U.S.C. 17731.	Pub. L. 110-422, title IV, §403, Oct. 15, 2008, 122 Stat. 4789.

§ 70505. Lunar outpost

- (a) ESTABLISHMENT.—As the Administration works toward the establishment of a lunar outpost, the Administration shall make no plans that would require a lunar outpost to be occupied to maintain its viability. Any such outpost shall be operable as a human-tended facility capable of remote or autonomous operation for extended periods.
- (b) DESIGNATION.—The United States portion of the first human-tended outpost established on the surface of the Moon shall be designated the "Neil A. Armstrong Lunar Outpost".

 $(\texttt{Pub. L. 111-314}, \, \S \, 3, \, \texttt{Dec. 18, 2010}, \, 124 \, \, \texttt{Stat. 3431.})$

HISTORICAL AND REVISION NOTES

Revised Section	Source (U.S. Code)	Source (Statutes at Large)
70505(a)	42 U.S.C. 17732(a).	Pub. L. 110-422, title IV, § 404(a), (b), Oct. 15, 2008,
70505(b)	42 U.S.C. 17732(b).	122 Stat. 4789.

§ 70506. Exploration technology research

The Administrator shall carry out a program of long-term exploration-related technology research and development, including such things as in-space propulsion, power systems, life support, and advanced avionics, that is not tied to specific flight projects. The program shall have the funding goal of ensuring that the technology research and development can be completed in a timely manner in order to support the safe, successful, and sustainable exploration of the solar system. In addition, in order to ensure that the broadest range of innovative concepts and technologies are captured, the long-term technology program shall have the goal of having a significant portion of its funding available for external grants and contracts with universities, research institutions, and industry.

(Pub. L. 111-314, §3, Dec. 18, 2010, 124 Stat. 3431.)

HISTORICAL AND REVISION NOTES

Revised Section	Source (U.S. Code)	Source (Statutes at Large)
70506	42 U.S.C. 17733(b).	Pub. L. 110–422, title IV, § 405(b), Oct. 15, 2008, 122 Stat. 4789.

PURPOSE

Pub. L. 110–422, title IV, §405(a), Oct. 15, 2008, 122 Stat. 4789, provided that: "A robust program of long-term exploration-related technology research and development will be essential for the success and sustainability of any enduring initiative of human and robotic exploration of the solar system."

INNOVATIVE TECHNOLOGIES FOR HUMAN SPACE FLIGHT

Pub. L. 106-391, title III, §313, Oct. 30, 2000, 114 Stat. 1594, provided that:

"(a) ESTABLISHMENT OF PROGRAM.—In order to promote a 'faster, cheaper, better' approach to the human exploration and development of space, the Adminis-

trator [of the National Aeronautics and Space Administration] shall establish a Human Space Flight Innovative Technologies program of ground-based and spacebased research and development in innovative technologies. The program shall be part of the Technology and Commercialization program.

"(b) AWARDS.—At least 75 percent of the amount appropriated for Technology and Commercialization under section 101(b)(4) [114 Stat. 1581] for any fiscal year shall be awarded through broadly distributed announcements of opportunity that solicit proposals from educational institutions, industry, nonprofit institutions, National Aeronautics and Space Administration Centers, the Jet Propulsion Laboratory, other Federal agencies, and other interested organizations, and that allow partnerships among any combination of those entities, with evaluation, prioritization, and recommendations made by external peer review panels.

"(c) PLAN.—The Administrator shall provide to the Committee on Science [now Committee on Science, Space, and Technology] of the House of Representatives and to the Committee on Commerce, Science, and Transportation of the Senate, not later than December 1, 2000, a plan to implement the program established under subsection (a)."

§ 70507. Technology development

The Administrator shall establish an intra-Directorate long-term technology development program for space and Earth science within the Science Mission Directorate for the development of new technology. The program shall be independent of the flight projects under development. The Administration shall have a goal of funding the intra-Directorate technology development program at a level of 5 percent of the total Science Mission Directorate annual budget. The program shall be structured to include competitively awarded grants and contracts.

(Pub. L. 111-314, §3, Dec. 18, 2010, 124 Stat. 3431.)

HISTORICAL AND REVISION NOTES

Revised Section	Source (U.S. Code)	Source (Statutes at Large)
70507	42 U.S.C. 17741.	Pub. L. 110–422, title V, §501, Oct. 15, 2008, 122 Stat. 4791.

§ 70508. Robotic or human servicing of spacecraft

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

(Pub. L. 111-314, §3, Dec. 18, 2010, 124 Stat. 3432.)

HISTORICAL AND REVISION NOTES

Revised Section	Source (U.S. Code)	Source (Statutes at Large)
70508	42 U.S.C. 17742.	Pub. L. 110–422, title V, §502, Oct. 15, 2008, 122 Stat. 4791.

CHAPTER 707—HUMAN SPACE FLIGHT INDEPENDENT INVESTIGATION COMMISSION

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§ 70701. Definitions

In this chapter:

- (1) COMMISSION.—The term "Commission" means a Commission established under this chapter.
- (2) INCIDENT.—The term "incident" means either an accident or a deliberate act.

(Pub. L. 111-314, §3, Dec. 18, 2010, 124 Stat. 3432.)

HISTORICAL AND REVISION NOTES

Revised Section	Source (U.S. Code)	Source (Statutes at Large)
70701	42 U.S.C. 16841.	Pub. L. 109–155, title VIII, §821, Dec. 30, 2005, 119 Stat. 2941.

§ 70702. 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 establish a Commission within 7 days after an incident specified in subsection (a).

(Pub. L. 111-314, §3, Dec. 18, 2010, 124 Stat. 3432.)

HISTORICAL AND REVISION NOTES

Revised Section	Source (U.S. Code)	Source (Statutes at Large)
70702	42 U.S.C. 16842.	Pub. L. 109–155, title VIII, § 822, Dec. 30, 2005, 119 Stat. 2941.

§ 70703. Tasks of Commission

- A Commission established pursuant to this chapter shall, to the extent possible, undertake the following tasks:
 - (1) INVESTIGATION.—Investigate the incident.
 - (2) CAUSE.—Determine the cause of the incident.
 - (3) CONTRIBUTING FACTORS.—Identify all contributing factors to the cause of the incident.
 - (4) RECOMMENDATIONS.—Make recommendations for corrective actions.
 - (5) ADDITIONAL FINDINGS OR RECOMMENDATIONS.—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) REPORT.—Prepare a report to Congress, the President, and the public.

(Pub. L. 111-314, §3, Dec. 18, 2010, 124 Stat. 3432.)