Calendar No. 155

106TH CONGRESS S. 342 1ST SESSION S. 342 [Report No. 106-77]

# A BILL

To authorize appropriations for the National Aeronautics and Space Administration for fiscal years 2000, 2001, and 2002, and for other purposes.

JUNE 16, 1999

Reported with amendments

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106TH CONGRESS 1ST SESSION



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To authorize appropriations for the National Aeronautics and Space Administration for fiscal years 2000, 2001, and 2002, and for other purposes.

### IN THE SENATE OF THE UNITED STATES

FEBRUARY 3, 1999

Mr. FRIST (for himself, Mr. MCCAIN, and Mr. BURNS) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

JUNE 16, 1999

Reported by Mr. MCCAIN, with amendments

[Omit the part struck through and insert the part printed in italic]

## A BILL

- To authorize appropriations for the National Aeronautics and Space Administration for fiscal years 2000, 2001, and 2002, and for other purposes.
  - 1 Be it enacted by the Senate and House of Representa-
  - 2 tives of the United States of America in Congress assembled,

### **1** SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

- 2 (a) SHORT TITLE.—This Act may be cited as the
- 3 "National Aeronautics and Space Administration Author-

### 4 ization Act for Fiscal Years 2000, 2001, and 2002".

### 5 (b) TABLE OF CONTENTS.—

- Sec. 1. Short title; table of contents.
- Sec. 2. Findings.
- Sec. 3. Definitions.

### TITLE I—AUTHORIZATION OF APPROPRIATIONS

#### Subtitle A—Authorizations

- Sec. 101. International Space Station.
- Sec. 102. Launch Vehicle and Payload Operations.
- Sec. 103. Science, aeronautics, and technology.
- Sec. 104. Mission support.
- Sec. 105. Inspector General.
- Sec. 106. Experimental Program to Stimulate Competitive Research.

### Subtitle B—Limitations and Special Authority

- Sec. 111. Use of funds for construction.
- Sec. 112. Availability of appropriated amounts.
- Sec. 113. Reprogramming for construction of facilities.
- Sec. 114. Consideration by committees.
- Sec. 115. Use of funds for scientific consultations or extraordinary expenses.

### TITLE II—INTERNATIONAL SPACE STATION

- Sec. 201. International Space Station contingency plan.
- Sec. 202. Cost limitation for the International Space Station.
- Sec. 203. Liability cross-waivers for International Space Station-related activities.

### TITLE III—MISCELLANEOUS PROVISIONS

- Sec. 301. National Aeronautics and Space Act of 1958 amendments.
- Sec. 302. Use of existing facilities.
- Sec. 303. Authority to reduce or suspend contract payments based on substantial evidence of fraud.
- Sec. 304. Notice.
- Sec. 305. Sense of Congress on the year 2000 problem.
- Sec. 306. Unitary Wind Tunnel Plan Act of 1949 amendments.
- Sec. 307. Enhancement of science and mathematics programs.
- Sec. 308. Authority to vest title.
- Sec. 309. NASA mid-range procurement test program.
- Sec. 310. Space advertising.

### 1 SEC. 2. FINDINGS.

2 Congress makes the following findings:

3 (1) The National Aeronautics and Space Ad-4 ministration should continue to pursue actions and 5 reforms directed at reducing institutional costs, in-6 cluding management restructuring, facility consoli-7 dation, procurement reform, personnel base 8 downsizing, and convergence with other defense and 9 commercial sector systems, while sustaining safety 10 standards for personnel and hardware.

(2) The National Aeronautics and Space Administration should sustain its proud history as the
leader of the United States in basic aeronautics and
space research.

(3) The United States is on the verge of creating and using new technologies in microsatellites,
information processing, and space launches that
could radically alter the manner in which the Federal Government approaches its space mission.

(4) The Federal Government should invest in
the types of research and innovative technology in
which United States commercial providers do not invest, while avoiding competition with the activities in
which United States commercial providers do invest.

(5) International cooperation in space explo ration and science activities serves the interest of the
 United States.

4 (6) In participating in the National Aero-5 nautical Test Alliance, the National Aeronautics and 6 Space Administration and the Department of De-7 fense should cooperate more effectively in leveraging 8 the mutual capabilities of these agencies to conduct 9 joint aeronautics and space missions that not only 10 improve United States aeronautics and space capa-11 bilities, but also reduce the cost of conducting those 12 missions.

### 13 SEC. 3. DEFINITIONS.

14 In this Act:

(1) ADMINISTRATOR.—The term "Administrator" means the Administrator of the National
Aeronautics and Space Administration.

(2) COMMERCIAL PROVIDER.—The term "commercial provider" means any person providing space
transportation services or other space-related activities, the primary control of which is held by persons
other than a Federal, State, local, or foreign government.

24 (3) CRITICAL PATH.—The term "critical path"
25 means the sequence of events of a schedule of events

| 1  | under which a delay in any event causes a delay in     |
|----|--|
| 2  | the overall schedule.                                  |
| 3  | (4) GRANT AGREEMENT.—The term "grant                   |
| 4  | agreement" has the meaning given that term in sec-     |
| 5  | tion 6302(2) of title 31, United States Code.          |
| 6  | (5) INSTITUTION OF HIGHER EDUCATION.—The               |
| 7  | term "institution of higher education" has the         |
| 8  | meaning given such term in section 1201(a) of the      |
| 9  | Higher Education Act of 1965 (20 U.S.C. 1141(a)).      |
| 10 | (6) Major reorganization.—With respect to              |
| 11 | the National Aeronautics and Space Administration,     |
| 12 | the term "major reorganization" means any reorga-      |
| 13 | nization of the Administration that involves the reas- |
| 14 | signment of more than 25 percent of the employees      |
| 15 | of the National Aeronautics and Space Administra-      |
| 16 | tion.  |
| 17 | (7) STATE.—The term "State" means each of              |
| 18 | the several States of the United States, the District  |
| 19 | of Columbia, the Commonwealth of Puerto Rico, the      |
| 20 | Virgin Islands, Guam, American Samoa, the Com-         |
| 21 | monwealth of the Northern Mariana Islands, and         |
| 22 | any other commonwealth, territory, or possession of    |
| 23 | the United States                                      |

| 1  | TITLE I—AUTHORIZATION OF                                    |
|----|---|
| 2  | APPROPRIATIONS  |
| 3  | Subtitle A—Authorizations                                   |
| 4  | SEC. 101. INTERNATIONAL SPACE STATION.                      |
| 5  | There are authorized to be appropriated to the Na-          |
| 6  | tional Aeronautics and Space Administration for the         |
| 7  | International Space Station—                                |
| 8  | (1) \$2,282,700,000 for fiscal year 2000;                   |
| 9  | (2) \$2,328,000,000 for fiscal year 2001; and               |
| 10 | (3) \$2,091,000,000 for fiscal year 2002.                   |
| 11 | SEC. 102. LAUNCH VEHICLE AND PAYLOAD OPERATIONS.            |
| 12 | There are authorized to be appropriated to National         |
| 13 | Aeronautics and Space Administration for Launch Vehicle     |
| 14 | and Payload Operations—                                     |
| 15 | (1) for fiscal year 2000—                                   |
| 16 | (A) \$2,547,400,000 for space shuttle oper-                 |
| 17 | ations;   |
| 18 | (B) <del>\$438,800,000</del> <i>\$463,800,000</i> for space |
| 19 | shuttle safety and performance upgrades; and                |
| 20 | (C) $$169,100,000$ for payload and utiliza-                 |
| 21 | tion operations.  |
| 22 | (2) for fiscal year 2001—                                   |
| 23 | (A) \$2,623,822,000 for space shuttle oper-                 |
| 24 | ations;   |

| 1  | (B) <del>\$451,964,000</del> <i>\$481,964,000</i> for space |
|----|---|
|    |   |
| 2  | shuttle safety and performance upgrades; and                |
| 3  | (C) \$174,173,000 for payload and utiliza-                  |
| 4  | tion operations.  |
| 5  | (3) for fiscal year 2002—                                   |
| 6  | (A) \$2,702,537,000 for space shuttle oper-                 |
| 7  | ations;   |
| 8  | (B) $\$465,523,000 \$505,523,000$ for space                 |
| 9  | shuttle safety/performance upgrades; and                    |
| 10 | (C) <b>\$179,398,000</b> for payload and utiliza-           |
| 11 | tion operations.  |
| 12 | SEC. 103. SCIENCE, AERONAUTICS, AND TECHNOLOGY.             |
| 13 | There are authorized to be appropriated to the Na-          |
| 14 | tional Aeronautics and Space Administration for Science,    |
| 15 | Aeronautics, and Technology—                                |
| 16 | (1) for fiscal year 2000—                                   |
| 17 | (A) \$2,196,600,000 for Space Science;                      |
| 18 | (B) \$256,200,000 for life and microgravity                 |
| 19 | sciences and applications, of which $$2,000,000$            |
| 20 | shall be for research and early detection system            |
| 21 | for breast and ovarian cancer and other wom-                |
| 22 | en's health issues;   |
| 23 | (C) \$1,459,100,000 for Earth Science;                      |
| 24 | (D) $$1,006,500,000$ for aeronautics and                    |
| 25 | space transportation technology, of which—                  |
|    |   |

(i) \$620,000,000 shall be used for 1 2 aeronautical research and technology, of which \$60,000,000 shall be used for the 3 4 Aviation Safety Program; (ii) \$254,000,000 shall be used for 5 6 advanced space transportation technology, 7 of which \$111,600,000 shall be used only 8 for the X-33 advanced technology dem-9 onstration vehicle program; and 10 (iii) \$132,500,000 shall be used for 11 commercial technology, of which some 12 funds may be used for the expansion of the NASA business incubation program which 13 14 is designed to foster partnerships between 15 educational institutions and small high-16 technology businesses with preference 17 given to those programs associated with 18 community colleges; 19 (E) \$406,300,000 for mission communica-20 tions services; and 21 (F) **\$100,000,000** *\$130,000,000* for aca-

(F) \$100,000,000 \$130,000,000 for academic programs, of which \$46,000,000 shall be
used for minority university research and education (at institutions such as Hispanic-serving
institutions and tribally-controlled community

| 1  | colleges), of which $$28,000,000$ shall be used              |
|----|--|
| 2  | for historically black colleges and <del>universities.</del> |
| 3  | universities; and  |
| 4  | (G) \$150,000,000 for future planning (space                 |
| 5  | launch).   |
| 6  | (2) for fiscal year 2001—                                    |
| 7  | (A) \$2,262,498,000 for Space Science;                       |
| 8  | (B) \$263,886,000 for life and microgravity                  |
| 9  | sciences and applications;                                   |
| 10 | (C) \$1,502,873,000 for Earth Science;                       |
| 11 | (D) $$1,036,695,000$ for aeronautics and                     |
| 12 | space transportation technology;                             |
| 13 | (E) \$418,489,000 for mission communica-                     |
| 14 | tions services; and  |
| 15 | (F) \$103,000,000 for academic programs.                     |
| 16 | (F) $$133,900,000$ for academic programs;                    |
| 17 | and  |
| 18 | (G) \$150,000,000 for future planning (space                 |
| 19 | launch).   |
| 20 | (3) for fiscal year 2002—                                    |
| 21 | (A) \$2,330,373,000 for Space Science;                       |
| 22 | (B) \$271,803,000 for life and microgravity                  |
| 23 | sciences and applications;                                   |
| 24 | (C) \$1,547,959,000 for Earth Science;                       |

| 1  | (D) $$1,067,796,000$ for aeronautics and   |
|--|--|
| 2  | space transportation technology;   |
| 3  | (E) \$431,044,000 for mission communica-   |
| 4  | tions services; <del>and</del>   |
| 5  | (F) \$106,090,000 for academic programs.   |
| 6  | (F) \$137,917,000 for academic programs;   |
| 7  | and  |
| 8  | (G) \$280,000,000 for future planning (space   |
| 9  | launch).   |
| 10   | SEC. 104. MISSION SUPPORT.   |
| 11   | There are authorized to be appropriated to the Na-   |
| 12   | tional Aeronautics and Space Administration for mission  |
| 13   | support—   |
|  |  |
| 14   | (1) for fiscal year 2000—  |
| 14<br>15   | <ul><li>(1) for fiscal year 2000—</li><li>(A) \$43,000,000 for safety, mission assur-</li></ul>  |
|  |  |
| 15   | (A) \$43,000,000 for safety, mission assur-  |
| 15<br>16   | (A) \$43,000,000 for safety, mission assur-<br>ance, engineering, and advanced concepts;   |
| 15<br>16<br>17   | <ul> <li>(A) \$43,000,000 for safety, mission assurance, engineering, and advanced concepts;</li> <li>(B) \$89,700,000 for space communication</li> </ul>  |
| 15<br>16<br>17<br>18   | <ul> <li>(A) \$43,000,000 for safety, mission assurance, engineering, and advanced concepts;</li> <li>(B) \$89,700,000 for space communication services;</li> </ul>  |
| 15<br>16<br>17<br>18<br>19   | <ul> <li>(A) \$43,000,000 for safety, mission assurance, engineering, and advanced concepts;</li> <li>(B) \$89,700,000 for space communication services;</li> <li>(C) \$181,000,000 for construction of fa-</li> </ul>   |
| 15<br>16<br>17<br>18<br>19<br>20   | <ul> <li>(A) \$43,000,000 for safety, mission assurance, engineering, and advanced concepts;</li> <li>(B) \$89,700,000 for space communication services;</li> <li>(C) \$181,000,000 for construction of facilities, including land acquisition; and</li> </ul>   |
| 15<br>16<br>17<br>18<br>19<br>20<br>21   | <ul> <li>(A) \$43,000,000 for safety, mission assurance, engineering, and advanced concepts;</li> <li>(B) \$89,700,000 for space communication services;</li> <li>(C) \$181,000,000 for construction of facilities, including land acquisition; and</li> <li>(D) \$2,181,200,000 for research and pro-</li> </ul>  |
| <ol> <li>15</li> <li>16</li> <li>17</li> <li>18</li> <li>19</li> <li>20</li> <li>21</li> <li>22</li> </ol> | <ul> <li>(A) \$43,000,000 for safety, mission assurance, engineering, and advanced concepts;</li> <li>(B) \$89,700,000 for space communication services;</li> <li>(C) \$181,000,000 for construction of facilities, including land acquisition; and</li> <li>(D) \$2,181,200,000 for research and program management, including personnel and re-</li> </ul> |

1 (3) \$2,646,839,000 for fiscal year 2002. 2 SEC. 105. INSPECTOR GENERAL. 3 There are authorized to be appropriated to the Na-4 tional Aeronautics and Space Administration for Inspector 5 General— 6 (1) \$20,800,000 for fiscal year 2000; 7 (2) \$21,424,000 for fiscal year 2001; and 8 (3) \$22,066,720 for fiscal year 2002. 9 SEC. 106. EXPERIMENTAL PROGRAM TO STIMULATE COM-10 PETITIVE RESEARCH. 11 Of the amounts authorized to be appropriated for 12 academic programs under section 103(1)(F), for fiscal year 2000, the Administrator shall use \$10,000,000 for 13 the program known as the Experimental Program to Stim-14 15 ulate Competitive Research. 16 Of the amounts authorized to be appropriated for academic programs under section 103(1)(F), 103(2)(F), and 17 18 103(3)(F), respectively, the Administrator shall use, for the program known as the Experimental Program to Stimulate 19 20 Competitive Research— 21 (1) \$10,000,000 for fiscal year 2000; 22 (2) \$15,000,000 for fiscal year 2001; and 23 (3) \$20,000,000 for fiscal year 2002.

11

## Subtitle B—Limitations and Special Authority

3 SEC. 111. USE OF FUNDS FOR CONSTRUCTION.

(a) AUTHORIZED USES.—Funds made available by 4 5 appropriations under section 101, paragraphs (1)(A), (1)(B), (2)(A), (2)(B), (3)(A), and (3)(B) of section 102, 6 7 section 103, and paragraphs (1)(A), (1)(B), (2)(A), and 8 (2)(B) of section 104 and funds made available by appro-9 priations for research operations support pursuant to sec-10 tion 104 may, at any location in support of the purposes 11 for which such funds are appropriated, be used for—

12 (1) the construction of new facilities; and

(2) additions to, repair of, rehabilitation of, or
modification of existing facilities (in existence on the
date on which such funds are made available by appropriation).

17 (b) LIMITATION.—

(1) IN GENERAL.—Until the date specified in
paragraph (2), no funds may be expended pursuant
to subsection (a) for a project, with respect to which
the estimated cost to the National Aeronautics and
Space Administration, including collateral equipment, exceeds \$1,000,000.

24 (2) DATE.—The date specified in this para-25 graph is the date that is 30 days after the Adminis-

trator notifies the Committee on Commerce, Science,
and Transportation of the Senate and the Committee on Science of the House of Representatives of
the nature, location, and estimated cost to the National Aeronautics and Space Administration of the
project referred to in paragraph (1).

7 (c) TITLE TO FACILITIES.—

8 (1) IN GENERAL.—If funds are used pursuant 9 to subsection (a) for grants for the purchase or con-10 struction of additional research facilities to institu-11 tions of higher education, or to nonprofit organiza-12 tions whose primary purpose is the conduct of sci-13 entific research, title to these facilities shall be vest-14 ed in the United States.

(2) EXCEPTION.—If the Administrator determines that the national program of aeronautical and
space activities will best be served by vesting title to
a facility referred to in paragraph (1) in an institution or organization referred to in that paragraph,
the title to that facility shall vest in that institution
or organization.

(3) CONDITION.—Each grant referred to in
paragraph (1) shall be made under such conditions
as the Administrator determines to be necessary to
ensure that the United States will receive benefits

| 1 | from the grant that are adequate to justify the mak- |
|---|--|
| 2 | ing of the grant.                                    |

### **3** SEC. 112. AVAILABILITY OF APPROPRIATED AMOUNTS.

4 To the extent provided in appropriations Acts, appro5 priations authorized under subtitle A may remain avail6 able without fiscal year limitation.

### 7 SEC. 113. REPROGRAMMING FOR CONSTRUCTION OF FA-8 CILITIES.

9 (a) USE OF CONSTRUCTION FUNDS.—Subject to sub-10 section (b), in addition to the amounts authorized for con-11 struction of facilities under section 101(4) or section 12 103(3), the Administrator may, for that purpose, from 13 funds otherwise available to the Administrator—

14 (1) use an additional amount equal to 10 per-15 cent of the amount specified; or

16 (2) to meet unusual cost variations, use an ad-17 ditional amount equal to 25 percent of that amount, 18 after the termination of a 30-day period beginning 19 on the date on which the Administrator submits a 20 report on the circumstances of such action by the 21 Administrator to the Committee on Commerce, 22 Science, and Transportation of the Senate and the 23 Committee on Science of the House of Representa-24 tives.

(b) LIMITATION.—The aggregate amount authorized
 to be appropriated for construction of facilities under sec tion 101(4) and section 103(3) shall not be increased as
 a result of any action taken by the Administrator under
 paragraph (1) or (2).

### 6 SEC. 114. CONSIDERATION BY COMMITTEES.

7 (a) IN GENERAL.—

8 (1) LIMITATION ON USE OF FUNDS.—Except as 9 provided in subsection (b), notwithstanding any 10 other provision of law, no amount made available by 11 appropriations for the National Aeronautics and 12 Space Administration in excess of the amount au-13 thorized for that program under this title may be 14 used for any program with respect to which—

15 (A) the annual budget request submitted
16 by the President under section 1105(a) of title
17 31, United States Code, included a request for
18 funding; and

(B) for the fiscal year of the request referred to in subparagraph (A), Congress denied
or did not provide funding.

(2) PROHIBITION.—Notwithstanding any other
provision of law, no amount made available by appropriations to the National Aeronautics and Space
Administration may be used for any program that is

not authorized under this Act, except for projects for
 construction of facilities.

3 (b) EXCEPTION.—Funds may be used for a program
4 of the National Aeronautics and Space Administration
5 upon the expiration of the 30-day period beginning on the
6 date on which the Administrator provides a notice to the
7 Committee on Commerce, Science, and Transportation of
8 the Senate and the Committee on Science of the House
9 of Representatives that contains—

10 (1) a full and complete statement of the action
11 proposed to be taken by the Administrator with re12 spect to that program; and

(2) the facts and circumstances that the Administrator relied on to support the proposed action
referred to in paragraph (1).

16 (c) INFORMATION.—The Administrator shall keep the 17 Committee on Commerce, Science, and Transportation of 18 the Senate and the Committee on Science of the House 19 of Representatives fully and currently informed with re-20 spect to all activities and responsibilities of the National 21 Aeronautics and Space Administration within the jurisdic-22 tion of those committees.

16

 1
 SEC. 115. USE OF FUNDS FOR SCIENTIFIC CONSULTATIONS

 2
 OR EXTRAORDINARY EXPENSES.

3 Not more than \$35,000 of the amounts made avail4 able by appropriations pursuant to section 103 may be
5 used by the Administrator for scientific consultations or
6 extraordinary expenses.

## 7 TITLE II—INTERNATIONAL 8 SPACE STATION

9 SEC. 201. INTERNATIONAL SPACE STATION CONTINGENCY

10 PLAN.

11 (a) TRANSFER OF FUNDS TO RUSSIA.—Notwith-12 standing any other provision of this Act, no funds or in-13 kind payments shall be transferred to any entity of the Russian Government or any Russian contractor to per-14 form work on the International Space Station which the 15 16 Russian Government pledged, at any time, to provide at its expense. This subsection shall not apply to the pur-17 chase or modification of— 18

(1) the Russian Service Module, United States
owned Functional Cargo Block, Russian space
launch vehicles and launch services; or

(2) until the assembly of the United States labmodule, command and control capability.

(b) CONTINGENCY PLAN FOR RUSSIAN ELEMENTS IN
CRITICAL PATH.—The Administrator shall develop and
deliver to Congress, within 60 days of enactment, a contin-

gency plan for the removal or replacement of each Russian
 Government element of the International Space Station
 that lies in the Station's critical path, as well as Russian
 space launch services. Such plan shall include—

- 5 (1) decision points for removing or replacing
  6 those elements and launch services, to the maximum
  7 extent feasible, necessary for completion of the
  8 International Space Station;
- 9 (2) the estimated cost of implementing each10 such decision; and

(3) the cost, to the extent determinable, of removing or replacing a Russian Government critical
path element or launch service after its decision
point has passed, if—

15 (A) the decision at that point was not to
16 remove or replace the Russian Government ele17 ment or launch service; and

(B) the National Aeronautics and Space
Administration later determines that the Russian Government will be unable to provide the
critical path element or launch service in a
manner to allow completion of the International
Space Station.

24 (c) BIMONTHLY REPORTING ON RUSSIAN STATUS.—
25 On or before December 1, 1999, and until substantial

completion (as defined in section 202(b)(3) of this Act) 1 2 of the assembly of the International Space Station, the 3 Administrator shall report to Congress on the first day 4 of every other month whether or not the Russians have 5 performed work expected of them and necessary to complete the International Space Station. Such report shall 6 7 also include a statement of the Administrator's judgment 8 concerning Russia's ability to perform work anticipated 9 and required to complete the International Space Station 10 before the next report under this subsection.

11 (d) DECISION ON RUSSIAN CRITICAL PATH ITEMS.— 12 The President shall notify Congress within 90 days of en-13 actment of this Act of the decision on whether or not to proceed with permanent replacement of the Russian Serv-14 15 ice Module, other Russian elements in the critical path of the International Space Station, or Russian launch serv-16 17 ices. Such notification shall include the reasons and justifications for the decision and the costs associated with 18 the decision. Such decision shall include a judgment of 19 20 when the assembly of the International Space Station will 21 be completed. If the President decides to proceed with a 22 permanent replacement for the Russian Service Module or 23 any other Russian element in the critical path or Russian 24 launch service, the President shall notify Congress of the 25 reasons and the justification for the decision to proceed

with the permanent replacement, and the costs associated
 with the decision.

### 3 SEC. 202. COST LIMITATION FOR THE INTERNATIONAL 4 SPACE STATION.

5 (a) LIMITATION OF COSTS.—Except as provided in
6 subsection (c), the total amount appropriated for—

7 (1) costs of the International Space Station
8 through completion of assembly may not exceed
9 \$21,900,000,000; and

(2) space shuttle launch costs in connection
with the assembly of the International Space Station
through completion of assembly may not exceed
\$17,700,000,000 (determined at the rate of
\$380,000,000 per space shuttle flight).

15 (b) Costs to Which Limitation Applies.—

16 (1) DEVELOPMENT COSTS.—The limitation im17 posed by subsection (a)(1) does not apply to funding
18 for operations, research, and crew return activities
19 subsequent to substantial completion of the Inter20 national Space Station.

(2) LAUNCH COSTS.—The limitation imposed
by subsection (a)(2) does not apply to space shuttle
launch costs in connection with operations, research,
and crew return activities subsequent to substantial
completion of the International Space Station.

(3) SUBSTANTIAL COMPLETION.—For purposes
 of this subsection, the International Space Station is
 considered to be substantially completed when the
 development costs comprise 5 percent or less of the
 total International Space Station costs for the fiscal
 year.

7 (c) AUTOMATIC INCREASE OF LIMITATION
8 AMOUNT.—The amounts set forth in subsection (a) shall
9 each be increased to reflect any increase in costs attrib10 utable to—

11 (1) economic inflation;

(2) compliance with changes in Federal, State,
or local laws enacted after the date of enactment of
this Act;

15 (3) the lack of performance or the termination 16 of participation of any of the International countries 17 participating in the International Space Station; and 18 (4) new technologies to improve safety, reli-19 ability, maintainability, availability, or utilization of 20 the International Space Station, or to reduce costs 21 after completion of assembly, including increases in costs for on-orbit assembly sequence problems, in-22 23 creased ground testing, verification and integration 24 activities, contingency responses to on-orbit failures,

and design improvements to reduce the risk of on orbit failures.

3 (d) NOTICE OF CHANGES.—The Administrator shall 4 provide with each annual budget request a written notice 5 and analysis of any changes under subsection (c) to the amounts set forth in subsection (a) to the Senate Commit-6 7 tees on Appropriations and on Commerce, Science, and 8 Transportation and to the House of Representatives Com-9 mittees on Appropriations and on Science. The written notice shall include— 10

(1) an explanation of the basis for the change,
including the costs associated with the change and
the expected benefit to the program to be derived
from the change; and

(2) an analysis of the impact on the assembly
schedule and annual funding estimates of not receiving the requested increases.

18 (e) REPORTING AND REVIEW.—

19 (1) Identification of costs.—

20 (A) SPACE SHUTTLE.—As part of the over21 all space shuttle program budget request for
22 each fiscal year, the Administrator shall iden23 tify separately the amounts of the requested
24 funding that are to be used for completion of

the assembly of the International Space Station.

3 (B) INTERNATIONAL SPACE STATION.—As part of the overall International Space Station 4 5 budget request for each fiscal year, the Admin-6 istrator shall identify the amount to be used for 7 development of the International Space Station. 8 (2) Accounting for cost limitations.—As 9 part of the annual budget request to the Congress, 10 the Administrator shall account for the cost limita-11 tions imposed by subsection (a).

(3) VERIFICATION OF ACCOUNTING.—The Administrator shall arrange for a verification, by the
General Accounting Office, of the accounting submitted to the Congress within 60 days after the date
on which the budget request is transmitted to the
Congress.

18 (4) INSPECTOR GENERAL.—Within 60 days 19 after the Administrator provides a notice and anal-20 ysis to the Congress under subsection (d), the In-21 spector General of the National Aeronautics and 22 Space Administration shall review the notice and 23 analysis and report the results of the review to the 24 committees to which the notice and analysis was 25 provided.

1

2

#### 1 SEC. 203. LIABILITY CROSS-WAIVERS FOR INTERNATIONAL

2

### SPACE STATION-RELATED ACTIVITIES.

3 (a) IN GENERAL.—Notwithstanding any other provision of law, the Administrator, on behalf of the United 4 5 States, its departments, agencies, and related entities, may reciprocally waive claims with cooperating parties, 6 7 and the related entities of such cooperating parties, under 8 which each party to each such waiver agrees to be respon-9 sible, and agrees to ensure that its own related entities are responsible, for damage or loss to its property or to 10 11 property for which it is responsible, or for losses resulting from any injury or death sustained by its own employees 12 13 or agents, as a result of activities connected to the Inter-14 national Space Station Program.

- 15 (b) LIMITATIONS.—
- 16

(1) CLAIMS.—A reciprocal waiver under sub-17 section (a) may not preclude a claim by any natural 18 person (including, but not limited to, a natural per-19 son who is an employee of the United States, the co-20 operating party, or the cooperating party's sub-21 contractors) or that natural person's estate, sur-22 vivors, or subrogees for injury or death, except with 23 respect to a subrogee that is a party to the waiver 24 or has otherwise agreed to be bound by the terms 25 of the waiver.

1 (2) LIABILITY FOR NEGLIGENCE.—A reciprocal 2 waiver under subsection (a) may not absolve any 3 party of liability to any natural person (including, 4 but not limited to, a natural person who is an em-5 ployee of the United States, the cooperating party, 6 or the cooperating party's subcontractors) or such 7 natural person's estate, survivors, or subrogees for 8 negligence, except with respect to a subrogee that is 9 a party to the waiver or has otherwise agreed to be 10 bound by the terms of the waiver.

11 (3) INDEMNIFICATION FOR DAMAGES.—A reciprocal waiver under subsection (a) may not be used 12 13 as the basis of a claim by the Administration or the 14 cooperating party for indemnification against the 15 other for damages paid to a natural person, or that 16 natural person's estate, survivors, or subrogees, for 17 injury or death sustained by that natural person as 18 a result of activities connected to the International 19 Space Station Program.

(c) SAFETY OVERSIGHT AND REVIEW REQUIRED.—
In the exercise of the authority provided in subsection (a),
and consistent with relevant agreements with cooperating
parties in the International Space Station Program, the
Administrator shall establish overall safety requirements
and plans and shall conduct overall integrated system

safety reviews for International Space Station elements
 and payloads, and may undertake any and all authorized
 steps (including, but not limited to, removal from launch
 manifest) to ensure, to the maximum extent possible, that
 such elements and payloads pose no safety risks for the
 International Space Station.

7 (d) DEFINITIONS.—In this section:

8 (1) COOPERATING PARTY.—The term "cooper-9 ating party" means any person who enters into an 10 agreement or contract with the Administration for 11 the performance or support of scientific, aero-12 nautical, or space activities in furtherance of the 13 International Space Station Program.

14 (2) RELATED ENTITY.—The term "related enti15 ty" includes contractors or subcontractors at any
16 tier, suppliers, grantees, and investigators or
17 detailees.

18 (3) COMMON TERMS.—Any term used in this
19 section that is defined in the National Aeronautics
20 and Space Act of 1958 (42 U.S.C. 2451 et seq.) has
21 the same meaning in this section as when it is used
22 in that Act.

23 (e) EFFECT ON PREVIOUS WAIVERS.—Subsection (a)
24 applies to any waiver of claims entered into by the Admin-

| 1  | istrator without regard to whether it was entered into be- |
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| 2  | fore, on, or after the date of enactment of this Act.      |
| 3  | TITLE III—MISCELLANEOUS                                    |
| 4  | PROVISIONS   |
| 5  | SEC. 301. NATIONAL AERONAUTICS AND SPACE ACT OF 1958       |
| 6  | AMENDMENTS.  |
| 7  | (a) Declaration of Policy and Purpose.—Sec-                |
| 8  | tion 102 of the National Aeronautics and Space Act of      |
| 9  | 1958 (42 U.S.C. 2451) is amended—                          |
| 10 | (1) by striking subsection (f);                            |
| 11 | (2) by redesignating subsections (g) and (h) as            |
| 12 | subsections (f) and (g), respectively; and                 |
| 13 | (3) in subsection (g), as redesignated by para-            |
| 14 | graph $(1)$ of this subsection, by striking "(f), and      |
| 15 | (g)" and inserting "and (f)".                              |
| 16 | (b) Reports to Congress.—Section 206(a) of the             |
| 17 | National Aeronautics and Space Act of 1958 (42 U.S.C.      |
| 18 | 2476(a)) is amended—                                       |
| 19 | (1) by striking "January" and inserting "May";             |
| 20 | and  |
| 21 | (2) by striking "calendar" and inserting "fis-             |
| 22 | cal".  |
| 23 | (c) DISCLOSURE OF TECHNICAL DATA.—Section 303              |
| 24 | of the National Aeronautics and Space Act of 1958 (42      |

1 U.S.C. 2454) is amended by adding at the end the fol-2 lowing new subsection:

3 "(c) The Administrator may delay for a period not 4 to exceed 5 years after development, the unrestricted pub-5 lic disclosure of technical data that would have been a trade secret or commercial or financial information that 6 7 is privileged or confidential under the meaning of section 8 552(b)(4) of title 5, United States Code, if the information 9 had been obtained from a non-Federal party, in any case 10 in which the technical data is generated in the performance of experimental, developmental, or research activities 11 12 or programs conducted by, or funded in whole or in part 13 by, the Administration. The technical data referred to in the preceding sentence shall not be subject to the disclo-14 15 sure requirements of section 552 of title 5, United States 16 Code.".

### 17 SEC. 302. USE OF EXISTING FACILITIES.

18 (a) IN GENERAL.—In any case in which the Adminis-19 trator considers the purchase, lease, or expansion of a fa-20 cility to meet requirements of the National Aeronautics 21 and Space Administration, the Administrator, taking into 22 account the applicable requirements of Federal law relat-23 ing to the use or disposal of excess or surplus property, 24 including the Federal Property and Administrative Serv-25 ices Act of 1949, shall—

| 1  | (1) consider whether there is available to the         |
|----|--|
| 2  | Administrator for use for meeting those                |
| 3  | requirements—  |
| 4  | (A) any military installation that is closed           |
| 5  | or being closed;                                       |
| 6  | (B) any facility at an installation referred           |
| 7  | to in subparagraph (A); or                             |
| 8  | (C) any other facility that the Adminis-               |
| 9  | trator determines to be—                               |
| 10 | (i) owned or leased by the United                      |
| 11 | States for the use of another agency of the            |
| 12 | Federal Government; and                                |
| 13 | (ii) considered by the head of the                     |
| 14 | agency involved—                                       |
| 15 | (I) to be excess to the needs of                       |
| 16 | that agency; or  |
| 17 | (II) to be underutilized by that                       |
| 18 | agency; and  |
| 19 | (2) in the case of an underutilized facility avail-    |
| 20 | able in part for use to meet those requirements, con-  |
| 21 | sider locating an activity of the National Aeronautics |
| 22 | and Space Administration for which a facility is re-   |
| 23 | quired at that underutilized facility in such manner   |
| 24 | as to share the use of the facility with 1 or more     |
| 25 | agencies of the Federal Government.                    |

1 (b) ADDITION OR EXPANSION.—To the maximum extent feasible and cost-effective (and not inconsistent with 2 3 the purposes of the Defense Base Closure and Realign-4 ment Act of 1990 (104 Stat. 1808 et seq.) and the amend-5 ments made by that Act), the Administrator shall meet the requirements of the National Aeronautics and Space 6 7 Administration for additional or expanded facilities by 8 using facilities that—

9 (1) the Administrator considers, pursuant to
10 subsection (a), to be available to the Administrator
11 for use to meet those requirements; and

(2) meet the management needs of the NationalAeronautics and Space Administration.

14 INFRASTRUCTURE.—The (c)UNDERUTILIZED United States space launch industry has identified under-15 utilized infrastructure at the Stennis Space Center for po-16 17 tential use in launch vehicle development activities. The proposed use of this infrastructure is compatible with the 18 19 Center's propulsion test programs and consistent with 20 other efforts to optimize taxpayer investments while fos-21 tering United States competitiveness and commercial use 22 of space. The National Aeronautics and Space Administra-23 tion is encouraged to pursue an appropriate method for 24 making the underutilized Stennis Space Center infrastruc-25 ture available under suitable terms and conditions, if so

requested by industry, and to notify the United States
 Senate Committee on Commerce, Science, and Transpor tation and the United States House of Representatives
 Committee on Science if existing Administration authority
 is insufficient for this purpose.

# 6 SEC. 303. AUTHORITY TO REDUCE OR SUSPEND CONTRACT 7 PAYMENTS BASED ON SUBSTANTIAL EVI8 DENCE OF FRAUD.

9 Section [2307(h)(8)] 2307(i)(8) of title 10, United
10 States Code, is amended by striking "and (4)" and insert11 ing "(4), and (6)".

12 SEC. 304. NOTICE.

13 (a) NOTICE OF REPROGRAMMING.—If any funds appropriated pursuant to the amendments made by this Act 14 15 are subject to a reprogramming action that requires notice to be provided to the Committees on Appropriations of the 16 17 Senate and the House of Representatives, notice of that 18 action shall concurrently be provided to the Committee on 19 Commerce, Science, and Transportation of the Senate and the Committee on Science of the House of Representa-20 21 tives.

(b) NOTICE OF REORGANIZATION.—Not later than
30 days before any major reorganization involving the reassignment of more than 25 percent of the employees of
any program, project, or activity of the National Aero-

nautics and Space Administration, the Administrator shall
 provide notice to the Committees on Commerce, Science,
 and Transportation and Appropriations of the Senate and
 the Committees on Science and Appropriations of the
 House of Representatives.

## 6 SEC. 305. SENSE OF CONGRESS ON THE YEAR 2000 PROB-7 LEM.

8 With the year 2000 rapidly approaching, it is the9 sense of Congress that the Administrator should—

(1) give high priority to correcting all 2-digit
date-related problems in the computer systems of
the National Aeronautics and Space Administration
to ensure that those systems continue to operate effectively in the year 2000 and in subsequent years;

(2) as soon as practicable after the date of enactment of this Act, assess the extent of the risk to
the operations of the National Aeronautics and
Space Administration posed by the problems referred to in paragraph (1), and plan and budget for
achieving compliance for all of the mission-critical
systems of the system by the year 2000; and

(3) develop contingency plans for those systems
that the National Aeronautics and Space Administration is unable to correct by the year 2000.

| 1  | SEC. 306. UNITARY WIND TUNNEL PLAN ACT OF 1949       |
|----|--|
| 2  | AMENDMENTS.  |
| 3  | The Unitary Wind Tunnel Plan Act of 1949 (50         |
| 4  | U.S.C. 511 et seq.) is amended—                      |
| 5  | (1) in section 101 by striking "transsonic and       |
| 6  | supersonic" and inserting "transsonic, supersonic,   |
| 7  | and hypersonic"; and                                 |
| 8  | (2) in section 103—                                  |
| 9  | (A) in subsection (a)—                               |
| 10 | (i) by striking "laboratories" and in-               |
| 11 | serting "laboratories and centers"; and              |
| 12 | (ii) by striking "supersonic" and in-                |
| 13 | serting "transsonic, supersonic, and                 |
| 14 | hypersonic"; and                                     |
| 15 | (B) in subsection (c), by striking "labora-          |
| 16 | tory" and inserting "facility".                      |
| 17 | SEC. 307. ENHANCEMENT OF SCIENCE AND MATHEMATICS     |
| 18 | PROGRAMS.  |
| 19 | (a) DEFINITIONS.—In this section:                    |
| 20 | (1) Educationally useful federal equip-              |
| 21 | MENT.—The term ''educationally useful Federal        |
| 22 | equipment" means computers and related peripheral    |
| 23 | tools and research equipment that is appropriate for |
| 24 | use in schools.                                      |

(2) SCHOOL.—The term "school" means a pub lic or private educational institution that serves any
 of the grades of kindergarten through grade 12.

(b) SENSE OF CONGRESS.—

4

5 (1) IN GENERAL.—It is the sense of Congress 6 that the Administrator should, to the greatest extent 7 practicable and in a manner consistent with applica-8 ble Federal law (including Executive Order No. 9 12999), donate educationally useful Federal equip-10 ment to schools in order to enhance the science and 11 mathematics programs of those schools.

(2) REPORTS.—Not later than 1 year after the
date of enactment of this Act, and annually thereafter, the Administrator shall prepare and submit to
Congress a report describing any donations of educationally useful Federal equipment to schools made
during the period covered by the report.

### 18 SEC. 308. AUTHORITY TO VEST TITLE.

19 Title III of the National Aeronautics and Space Act
20 of 1958 (72 Stat. 432 et seq.) is amended by adding at
21 the end the following:

22 "AUTHORITY TO VEST TITLE TO TANGIBLE PERSONAL
23 PROPERTY FOR RESEARCH OR TECHNOLOGY DEVEL24 OPMENT

25 "SEC. 313. Notwithstanding any other provision of
26 law, the Administrator may vest title in tangible property
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(as that term is defined by the Administrator) in any par ticipant that enters into a cooperative agreement with the
 Administrator if—

4 "(1) the primary purpose of the participant is
5 to conduct scientific research or technology develop6 ment;

"(2) the property is acquired with amounts provided under a cooperative agreement between the
participant and the Administrator to conduct scientific research or technology development;

"(3) the Administrator determines that vesting
the title to the property in the participant furthers
the objectives of the National Aeronautics and Space
Administration; and

15 "(4) the vesting of the title in the participant16 is made—

17 "(A) on the condition that the United
18 States Government will not incur any further
19 obligation; and

20 "(B) subject to any other condition that21 the Administrator considers to be appropriate.".

3 Section 5062 of the Federal Acquisition Streamlining
4 Act of 1994 [(108 Stat. 3356)] (42 U.S.C. 2473 nt) is
5 amended—

6 (1) in subsection (a), by inserting after the first 7 sentence the following: "In addition to providing any 8 other notice of any acquisition under the test con-9 ducted under this section, the Administrator shall 10 publish a notice of that acquisition in, or make such 11 a notice available through, the automated version of 12 the Commerce Business Daily published by the Sec-13 retary of Commerce.";

(2) in subsection (b), by striking "an estimated
annual total obligation of funds of \$500,000 or less"
and inserting "a basic value (as that term is defined
by the Administrator)—

18 "(1) of \$2,000,000 or less; or

19 "(2) if options to purchase are involved, of
20 \$10,000,000 or less.";

(3) in subsection (c), by striking
"\$100,000,000" and inserting "\$500,000,000"; and
(4) in subsection (f), by striking "4 years" and
inserting "6 years".

SEC. 310. SPACE ADVERTISING.

1

2 (a) DEFINITION.—Section 70102 of title 49, United
3 States Code, is amended—

4 (1) by redesignating paragraphs (8) through
5 [(12)] (16) as paragraphs (9) through [(13),] (17),
6 respectively; and

7 (2) by inserting after paragraph (7) the fol-8 lowing:

9 "(8) 'obtrusive space advertising' means adver-10 tising in outer space that is capable of being recog-11 nized by a human being on the surface of the Earth 12 without the aid of a telescope or other technological 13 device.".

(b) PROHIBITION.—Chapter 701 of title 49, United
States Code, is amended by inserting after section 70109
the following new section:

### 17 "§ 70109a. Space advertising

18 "(a) LICENSING.—Notwithstanding the provisions of 19 this chapter or any other provision of law, the Secretary 20 may not, for the launch of a payload containing any mate-21 rial to be used for the purposes of obtrusive space 22 advertising—

23 "(1) issue or transfer a license under this chap-24 ter; or

25 "(2) waive the license requirements of this26 chapter.

"(b) LAUNCHING.—No holder of a license under this
 chapter may launch a payload containing any material to
 be used for purposes of obtrusive space advertising on or
 after the date of enactment of the National Aeronautics
 and Space Administration Authorization Act for Fiscal
 Year 2000.

7 "(c) COMMERCIAL SPACE ADVERTISING.—Nothing in
8 this section shall apply to nonobtrusive commercial space
9 advertising, including advertising on—

10 "(1) commercial space transportation vehicles;

11 "(2) space infrastructure, payloads;

12 "(3) space launch facilities; and

13 "(4) launch support facilities.".

14 (c) NEGOTIATION WITH FOREIGN LAUNCHING NA-15 TIONS.—

(1) The President is requested to negotiate with
foreign launching nations for the purpose of reaching 1 or more agreements that prohibit the use of
outer space for obtrusive space advertising purposes.

20 (2) It is the sense of Congress that the Presi21 dent should take such action as is appropriate and
22 feasible to enforce the terms of any agreement to
23 prohibit the use of outer space for obtrusive space
24 advertising purposes.

(3) As used in this subsection, the term "for-1 2 eign launching nation" means a nation-3 (A) that launches, or procures the launch-4 ing of, a payload into outer space; or (B) from the territory or facility of which 5 6 a payload is launched into outer space. (d) CLERICAL AMENDMENT.—The table of sections 7 for chapter 701 is amended by inserting after the item 8 relating to section 70109 the following: 9 "70109a. Space advertising.".