Calendar No. 204

104TH CONGRESS S. 1048

[Report No. 104–155]

# A BILL

To authorize appropriations for fiscal year 1996 to the National Aeronautics and Space Administration for human space flight; science, aeronautics, and technology; mission support; and Inspector General; and for other purposes.

OCTOBER 11 (legislative day, OCTOBER 10), 1995 Reported with an amendment in the nature of a substitute

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S. 1048

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#### IN THE SENATE OF THE UNITED STATES

JULY 18 (legislative day, JULY 10), 1995

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

OCTOBER 11 (legislative day, OCTOBER 10), 1995

Reported by Mr. PRESSLER, with an amendment in the nature of a substitute [Strike all after the enacting clause and insert the part printed in italic]

## A BILL

- To authorize appropriations for fiscal year 1996 to the National Aeronautics and Space Administration for human space flight; science, aeronautics, and technology; mission support; and Inspector General; 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.

2 This Act may be cited as the "National Aeronautics
3 and Space Administration Authorization Act, Fiscal Year
4 1996".

#### 5 SEC. 2. DEFINITIONS.

6 For the purposes of this Act—

7 (1) the term "Administrator" means the Ad8 ministrator of the National Aeronautics and Space
9 Administration;

10 (2) the term "NASA" means the National Aer11 onautics and Space Administration; and

12 (3) the term "institution of higher education"
13 has the meaning given such term in section 1201(a)
14 of the Higher Education Act of 1965 (20 U.S.C.
15 1141(a)).

16 TITLE I-AUTHORIZATION OF APPROPRIATIONS

#### 17 SEC. 101. HUMAN SPACE FLIGHT.

18 There are authorized to be appropriated to the Na-19 tional Aeronautics and Space Administration for Human 20 Space Flight the following amounts, to become available 21 October 1, 1995:

- 22 (1) Space Station, \$1,818,800,000.
- 23 (2) Russian Cooperation, \$129,200,000.
- 24 (3) Space Shuttle, \$3,031,800,000.
- 25 (4) Payload and Utilization Operations,
  26 \$293,000,000.

#### 1 SEC. 102. SCIENCE, AERONAUTICS, AND TECHNOLOGY.

2 There are authorized to be appropriated to the Na3 tional Aeronautics and Space Administration for Science,
4 Aeronautics, and Technology the following amounts, to be5 come available October 1, 1995:

6 (1) Space Science, \$1,958,900,000, of which 7 \$48,700,000 shall be allocated to the Stratospheric 8 Observatory for Infrared Astronomy, \$15,000,000 9 shall be allocated to the Space Infrared Telescope 10 Facility, and \$30,000,000 shall be allocated to the 11 New Millennium initiative.

12 (2) Life and Microgravity Sciences and Applica13 tions, \$507,000,000, of which \$3,000,000 shall be
14 allocated for the construction of an addition to the
15 Microgravity Development Laboratory, Marshall
16 Space Flight Center.

17 (3) Mission to Planet Earth, \$1,360,100,000,
18 of which \$17,000,000 shall be allocated to the con19 struction of the Earth Systems Science Building,
20 Goddard Space Flight Center.

21 (4) Aeronautical Research and Technology,
22 \$891,300,000, of which \$5,400,000 shall be allo23 cated to the modernization of the Unitary Plan
24 Wind Tunnel Complex, Ames Research Center.

25 (5) Space Access and Technology,
 26 \$766,600,000, of which at least \$70,000,000 shall
 •\$ 1048 RS

be allocated to support a shuttle flight for the Shuttle Imaging Radar C, of which \$5,000,000 shall be
used to establish a Rural Technology Transfer and
Commercialization Center for the Rocky Mountains
and Upper Plains States region, and of which
\$159,000,000 shall be allocated to the Reusable
Launch Vehicle program.

8 (6) Mission Communication Services,
9 \$461,300,000.

10 (7) Academic Programs, \$104,700,000, of
11 which \$3,000,000 shall be allocated to support the
12 establishment of an Upper Plains States regional
13 science education and outreach center and of which
14 \$1,000,000 shall be allocated to establish a Rural
15 Teacher Resource Center.

#### 16 SEC. 103. MISSION SUPPORT.

17 There are authorized to be appropriated to the Na-18 tional Aeronautics and Space Administration for Mission 19 Support the following amounts, to become available Octo-20 ber 1, 1995:

21 (1) Safety, Reliability, and Quality Assurance,
22 \$37,600,000.

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 (2)
 Space
 Communication
 Services,

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 \$219,400,000.
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1	(3) Research and Program Management, in-
2	cluding personnel and related costs, travel, and re-
3	search operations support, \$2,047,800,000.
4	(4) Construction of Facilities, including land acquisi-
5	tion, \$135,000,000, including the following:
6	(A) Restoration of Flight Systems Re-
7	search Laboratory, Ames Research Center;
8	(B) Restoration of chilled water distribu-
9	tion system, Coddard Space Flight Center;
10	(C) Replace chillers, various buildings, Jet
11	Propulsion Laboratory;
12	(D) Rehabilitation of electrical distribution
13	<del>system,</del> White Sands Test Facility, Johnson
14	Space Center;
15	(E) Replace main substation switchgear
16	and circuit breakers, Johnson Space Center;
17	<del>(E) Replace 15kv load break switches,</del>
18	Kennedy Space Center;
19	(F) Rehabilitation of Central Air Equip-
20	ment Building, Lewis Research Center;
21	(C) Restoration of high pressure air com-
22	pressor system, Marshall Space Flight Center;
23	(H) Restoration of Information and Elec-
24	tronic Systems Laboratory, Marshall Space
25	Flight Center;

1	(I) Restoration of canal lock, Stennis
2	Space Center;
3	(J) Restoration of primary electrical dis-
4	tribution system, Wallops Flight Facility;
5	(K) Repair of facilities at various locations,
6	not in excess of \$1,500,000 per project;
7	(L) Rehabilitation and modification of fa-
8	<del>cilities</del> at <del>various</del> locations, not in excess of
9	<del>\$1,500,000</del> per project;
10	(M) Minor construction of new facilities
11	and additions to existing facilities at various lo-
12	cations, not in excess of \$1,500,000 per project;
13	(N) Facility planning and design, not oth-
14	erwise provided for; and
15	(O) Environmental compliance and res-
16	toration.
17	SEC. 104. INSPECTOR GENERAL.
18	There are authorized to be appropriated to the Na-
19	tional Aeronautics and Space Administration for Inspector
20	General \$17,300,000, to become available October 1,
21	<del>1995.</del>
22	SEC. 105. OFFICE OF COMMERCIAL SPACE TRANSPOR-
23	TATION.
24	There are authorized to be appropriated to the Office
25	of Commercial Space Transportation of the Department

of Transportation \$7,000,000, to become available Octo ber 1, 1995.

3 TITLE II—LIMITATIONS AND GENERAL
 4 PROVISIONS

5 SEC. 201. SPACE STATION LIMITATION.

6 The aggregate amount authorized to be appropriated
7 for Space Station and related activities under sections
8 101, 102, and 103 shall not exceed \$2,100,000,000.

9 SEC. 202. EXPERIMENTAL PROGRAM TO STIMULATE COM-

10 **PETITIVE RESEARCH.** 

Of the amounts appropriated under sections 101 and 12 102, \$6,900,000 are authorized for the Experimental Pro-13 gram to Stimulate Competitive Research in accordance 14 with title III of the National Aeronautics and Space Ad-15 ministration Act, Fiscal Year 1993 (Public Law 102-588; 16 106 Stat. 5119).

#### 17 SEC. 203. SPECIAL TECHNOLOGY ENHANCEMENT GRANTS

18 (a) IN GENERAL.

(1) GRANTS.—The Administrator shall make up
to 4 special technology enhancement grants to areas
or States that have not participated fully in the Administration's aeronautical and space programs in
order to enable such areas or States to increase their
capabilities in technology development, utilization,
and transfer in aeronautics, space science, and relat-

1	ed areas. At least one such grant shall be made
2	available to a consortium of States, each one of
3	which has an average population density of less than
4	12.3 persons per square mile, based on data for
5	1993 from the Bureau of the Census.
6	(2) ACTIVITIES. Grants made under this sec-
7	tion shall be available for—
8	(A) assessment of resources and needs;
9	(B) development of infrastructure, includ-
10	ing incubators and prototype demonstration fa-
11	<del>cilities;</del>
12	(C) collaborations with industry;
13	(D) expansion of capabilities in procure-
14	<del>ment;</del>
15	(E) development of technology transfer
16	and commercialization support capabilities;
17	(F) activities to increase participation in
18	the Small Business Innovation Research pro-
19	gram and other NASA research, development,
20	and technology utilization and transfer pro-
21	<del>grams;</del>
22	(C) relevant research of interest to NASA;
23	and
24	(H) such other activities as the Adminis-
25	trator shall deem appropriate.

1	(3) Special consideration. In making
2	grants under this section, the Administrator shall
3	give special consideration to proposals that—
4	(A) will build upon and expand a develop-
5	ing research and technology base, and
6	(B) will insure a lasting research and de-
7	velopment and technology development and
8	transfer capability.
9	(b) ELIGIBLE ENTITIES. Grants under subsection
10	(a)(1) may be made to—
11	(1) State and local governments;
12	(2) institutions of higher education; and
13	(3) organizations with expertise in research and
14	development, technology development, and tech-
15	nology transfer in areas of interest to NASA.
16	(c) FUNDING OF PROGRAM. Of the amounts author-
17	ized in section 102 for the Space Access and Technology
18	account, \$15,000,000 are authorized to be used for grants
19	under subsection (a).
20	SEC. 204. CLEAR LAKE DEVELOPMENT FACILITY.
21	The Administrator shall acquire, for no more than
22	\$35,000,000, a certain parcel of land, together with exist-
23	ing facilities, located on the site of the property referred
24	to as the Clear Lake Development Facility, Clear Lake,
25	Texas, comprising approximately 13 acres and including

a light manufacturing facility, an avionics development fa cility, and an assembly and test building which shall be
 modified for use as a neutral buoyancy laboratory in sup port of human space flight activities.

#### 5 SEC. 205. YELLOW CREEK FACILITY.

Notwithstanding any other provision of law or regula-6 7 tion, the National Aeronautics and Space Administration (NASA) shall convey, without reimbursement, to the State 8 9 of Mississippi, all rights, title, and interest of the United States of the United States in the property known as the 10 Yellow Creek Facility and consisting of approximately 11 1,200 acres near the city of Iuka, Mississippi, including 12 all improvements thereon and any personal property 13 owned by NASA that is currently located on-site and 14 which the State of Mississippi requires to facilitate the 15 transfer: *Provided* That appropriated funds shall be used 16 to effect this conveyance: *Provided further*, That 17 \$10,000,000 in appropriated funds otherwise available to 18 NASA shall be transferred to the State of Mississippi to 19 be used in the transition of the facility: *Provided further*, 20 That each Federal agency with prior contact to the site 21 22 shall remain responsible for any and all environmental remediation made necessary as a result of its activities on 23 the site: Provided further, That in consideration of this 24 conveyance, NASA may require such other terms and con-25

ditions as the Administrator deems appropriate to protect
 the interests of the United States: *Provided further*, That
 the conveyance of the site and the transfer of the funds
 to the State of Mississippi shall occur not later than 30
 days after the date of enactment of this Act.

#### 6 SEC. 206. RADAR REMOTE SENSING SATELLITES.

7 (a) FINDINGS.—The Congress finds that—

8 (1) radar satellites represent one of the most 9 important developments in remote sensing satellite 10 technology in recent years;

11 (2) the ability of radar satellites to provide 12 high-quality Earth imagery regardless of cloud cover 13 and to provide three-dimensional pictures of the 14 Earth's surface when the satellites are flown in com-15 bination dramatically enhance conventional optical 16 remote sensing satellite capabilities and usefulness;

(3) the National Aeronautics and Space Administration has developed a unique background and expertise in developing and operating radar satellites
as a result of their activities connected with its
radar satellites, Shuttle Imaging Radar (SIR)-A,
SIR-B, and SIR-C, which has flown twice on the
Space Shuttle;

24 (4) other nations currently have operational
 25 radar satellite systems, including Japan and West-

1	ern Europe, with other spacefaring nations expected
2	to develop such systems in the near future; and
3	(5) the development of an operational radar
4	satellite program at NASA featuring free-flying sat-
5	ellites and a related ground system is critical to
6	maintain United States leadership in remote sensing
7	satellite technology and is important to our national
8	security and international competitiveness.
9	(b) POLICY.—It is the policy of the United States
10	that—
11	(1) NASA should develop and operate a radar
12	satellite program as soon as practicable;
13	(2) NASA should build on the experience and
14	knowledge gained from its previous radar endeavors;
15	(3) NASA should work with other Federal
16	agencies and, as appropriate, with other spacefaring
17	nations, in its radar satellite activities; and
18	(4) NASA should make maximum use of exist-
19	ing National remote sensing assets such as the
20	Landsat system, activities connected with the Mis-
21	sion to Planet Earth, and the data management fa-
22	cilities of the Department of the Interior in all of its
23	radar satellite activities.
24	(c) Program Requirements. NASA shall initiate
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25 a program to develop and operate a radar satellite pro-

gram. The program shall employ the most advanced radar 1 satellite technology currently available. To the maximum 2 extent possible, all of the data processing, dissemination, 3 4 and archiving functions shall be performed by the Department of the Interior. The program should be planned in 5 such a way that the data from the radar satellite system 6 7 is converted into a broad range of informational products with research, commercial, and government applications 8 9 and any other applications that are in the public interest and to distribute such products over the widest user com-10 munity that is practicable, including industry, academia, 11 research institutions, local and State governments, and 12 other Federal agencies. The program should coordinate 13 with, and make appropriate use of, other remote sensing 14 15 satellite programs, such as the Landsat program.

16 (d) PLAN. Within 90 days after the enactment of 17 this Act, the Administrator shall submit a detailed plan 18 for implementation of the radar satellite program to the 19 Committee on Commerce, Science, and Transportation of 20 the Senate and the Committee on Science of the House 21 of Representatives. The plan should include—

22 (1) the goals and mission of the program;

23 (2) planned activities for the next 5 years to
24 achieve such goals and mission;

(3) strategies for maximizing the usefulness of
 the satellite data to the scientific and academic com munities, the private sector, all levels of government,
 and the general public;

5 (4) concepts for integrating the program with 6 other related NASA activities (such as Mission to Planet Earth), the Landsat program, and other cur-7 8 rent and emerging remote sensing satellite programs 9 and activities in the Federal government and all other public and private sectors so that the program 10 11 complements and strengthens such programs and activities and is not duplicative of these efforts; 12

(5) concepts developed in consultation with Department of the Interior, for processing, archiving,
and disseminating the satellite data using, to the
maximum extent possible, existing Federal government programs and assets at the Department of the
Interior and other Federal agencies;

19 (6) targets and timetables for undertaking spe20 cific activities and actions within the program;

21 (7) a 5-year budget profile for the program;
22 and

23 (8) a comparison between the program and the
 24 radar satellite programs of other spacefaring na-

tions, addressing their respective costs, capabilities,
 and other relevant features.

3 (e) AUTHORIZATION. Of the funds authorized in
4 section 102 for the Earth Probes account, the Adminis5 trator shall allocate at least \$15,000,000 to the radar sat6 ellite program to conduct Phase A and Phase B studies.
7 SEC. 207. STUDY OF THE HYDROLOGY OF THE UPPER MIS8 SOURI RIVER BASIN.

9 The Administrator shall initiate a project to conduct research on the hydrology of the Upper Missouri River 10 Basin. The project shall be part of the Mission to Planet 11 Earth program and shall employ satellite observations, 12 surface-based radar data, and ground-based hydrological 13 and other scientific measurements to develop quantitative 14 15 models that address complex atmospheric and surface hydrological processes. The project shall be incorporated 16 into NASA's activities connected with the multiagency 17 **Clobal Energy and Water Cycle Experiment to understand** 18 the interactions between the atmosphere and land sur-19 faces. In implementing the project, NASA shall coordinate 20 and consult with other appropriate federal agencies, in-21 22 cluding the Department of Commerce, the Department of 23 the Interior, and the National Science Foundation. To the 24 maximum extent possible, NASA shall employ the assistance of universities, local and State governments, indus-25

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try, and any other appropriate entities from the Upper 1 2 Missouri River Basin region to carry out this program and the Administrator is authorized to support the project-re-3 4 lated work of such entities with grants, technical advice, equipment, in kind help, and any other type of appropriate 5 assistance. Within 90 days after the enactment of this Act, 6 7 the Administrator shall submit a plan for the implementation of this project, which shall set forth the goals, project 8 9 costs, planned activities, and overall strategies for the 10 project, to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on 11 Science of the House of Representatives. Of the funds au-12 thorized in section 102 for Mission to Planet Earth, at 13 least \$10,000,000 shall be allocated by the Administrator 14 to the Upper Missouri River Basin project. 15

#### 16 SEC. 208. SHUTTLE PRIVATIZATION.

17 (a) The Administrator is hereby directed to conduct a study of the feasibility of implementing the recommenda-18 tion of the Independent Shuttle Management Review 19 Team that NASA transition towards the privatization of 20 the Shuttle. The study shall identify, discuss, and, where 21 22 possible, present options for resolving, the major policy and legal issues that must be addressed before the Shuttle 23 24 is privatized, including, but not limited to, the following 25 issues(1) whether the government or the Shuttle con tractor should own the Shuttle orbiters and Shuttle
 ground facilities;

4 (2) whether the federal government should in5 demnify the contractor for any third party liability
6 arising from Shuttle operations, and, if so, under
7 what terms and conditions;

8 (3) whether commercial payloads should be al-9 lowed to be launched on the Shuttle and whether 10 any classes of payloads should be made ineligible for 11 launch consideration;

(4) whether NASA and federal government payloads should have priority over non-federal government payloads in the Shuttle launch assignments
and what policies should be developed to prioritize
among payloads generally;

17 (5) whether the public interest requires that
18 certain Shuttle functions continue to be performed
19 by the federal government; and

20 (6) whether privatization of the Shuttle would
21 produce any significant cost savings and, if so, how
22 much cost savings.

(b) Within 60 days of the enactment of this Act,
NASA shall complete the study and shall submit a report
on that study to the Committee on Commerce, Science,

and Transportation of the Senate and the Committee on
 Science of the House of Representatives.

3 (c) As a transitional step towards Shuttle privatization, NASA shall take all necessary and appropriate ac-4 tions to consolidate Shuttle contractor activities under one 5 prime contractor and, within 180 days of the enactment 6 7 of this Act, report to the Committee on Commerce, Science, and Transportation of the Senate and the Com-8 9 mittee on Science of the House of Representatives on those actions. If NASA has failed to complete such con-10 solidation by the expiration of the 180-day period, the re-11 port shall explain the reasons for that failure and describe 12 the steps being taken by NASA to finalize the consolida-13 tion as expeditiously as possible. 14

#### 15 SEC. 209. USE OF FUNDS FOR CONSTRUCTION.

(a) AUTHORIZED USES. The Administrator may use
 funds appropriate for purposes other than those appro priated for—

- 19 (1) construction of facilities;
- 20 (2) research and program management, exclud-

21 ing research operations support; and

22 (3) Inspector General,

23 for the construction of new facilities and additions to, re-

24 pair of, rehabilitation of, or modification of, existing facili-

ties at any location in support of the purposes for which
 such funds are appropriated.

3 (b) LIMITATION.—None of the funds used pursuant 4 to subsection (a) may be expended for a project, the estimated cost of which to the National Aeronautics and 5 Space Administration, including collateral equipment, ex-6 7 ceeds \$750,000, until 30 days have passed after the Ad-8 ministrator has notified the Committee on Science of the 9 House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate of the 10 nature, location, and estimated cost to the National Aero-11 nautics and Space Administration of such project. 12

#### 13 SEC. 210. CONSTRUCTION OF FACILITIES.

14 (a) REPROGRAMMING FOR CONSTRUCTION OF FA 15 CILITIES.—If the Administrator determines that—

16 (1) new developments in the national program
17 of aeronautical and space activities have occurred;

18 (2) such developments require the use of addi19 tional funds for the purpose of construction, expan20 sion, or modification of facilities at any location; and

21 (3) deferral of such action until the enactment
22 of the next National Aeronautics and Space Admin23 istration authorization Act would be inconsistent
24 with the interest of the Nation in aeronautical and
25 space sciences;

the Administrator may use the amounts authorized for 1 construction of facilities pursuant to this Act or previous 2 National Aeronautics and Space Administration author-3 ization Acts for such purposes. The amounts may be used 4 to acquire, construct, convert, rehabilitate, or install tem-5 porary or permanent public works, including land acquisi-6 7 tion, site preparation, appurtenances, utilities, and equipment. The Administrator may use such amounts for facil-8 9 ity consolidations, closures, and demolition required to downsize the NASA physical plant to improve operations 10 11 and reduce costs.

12 (c) LIMITATIONS.

13 (1) Amounts appropriated for a construction-of facilities project—

15 (A) may be varied upward by 10 percent at
16 the discretion of the Administrator; or

17 (B) may be varied upward by 25 percent 18 to meet unusual cost variations after the expi-19 ration of 30 days following a report on the cir-20 cumstances of such action by the Administrator 21 to the Committee on Commerce, Science, and 22 Transportation of the Senate and the Committee on Science of the House of Representatives. 23 24 The aggregate amount authorized to be appro-25 priated for construction of facilities shall not be increased as a result of actions authorized under this section.

3 (2) No amounts may be obligated until a period 4 of 30 days has passed after the Administrator or the 5 Administrator's designee has transmitted to the Committee on Science of the House of Representa-6 7 tives, and to the Committee on Commerce, Science, and Transportation of the Senate, a written report 8 describing the nature of the acquisition, construc-9 10 tion, conversion, rehabilitation, or installation, its cost, and the reasons therefor. 11

(d) TITLE TO FACILITIES.—If funds are used pursu-12 ant to subsection (a) for grants to institutions of higher 13 education, or to nonprofit organizations whose primary 14 15 purpose is the conduct of scientific research, for purchase or construction of additional research facilities, title to 16 such facilities shall be vested in the United States unless 17 the Administrator determines that the national program 18 of aeronautical and space activities will best be served by 19 20 vesting title in the grantee institution or organization. Each such grant shall be made under such conditions as 21 22 the Administrator shall determine to be required to ensure that the United States will receive therefrom benefits ade-23 24 quate to justify the making of that grant.

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#### 1 SEC. 210. AVAILABILITY OF APPROPRIATED AMOUNTS.

2 To the extent provided in appropriations Acts, appro3 priations authorized under this Act may remain available
4 without fiscal year limitation.

#### 5 SEC. 211. CONSIDERATION BY COMMITTEES.

6 Notwithstanding any other provision of this Act—

7 (1) no amount appropriated pursuant to this
8 Act may be used for any program deleted by the
9 Congress from requests as originally made to either
10 the Committee on Science of the House of Rep11 resentatives or the Committee on Commerce,
12 Science, and Transportation of the Senate; and

13 (2) no amount appropriated pursuant to the
14 Act may be used for any program in excess of the
15 amount actually authorized for that particular pro16 gram, excluding construction of facility projects,

unless a period of 30 days has passed after the receipt 17 by such Committee of notice given by the Administrator 18 or the Administrator's designee containing a full and com-19 plete statement of the action proposed to be taken and 20 the facts and circumstances relied upon in support of the 21 22 proposed action. NASA shall keep those Committees fully 23 and currently informed with respect to all activities and 24 responsibilities within their jurisdiction. Except as other-25 wise provided by law, any Federal department, agency, or 26 independent establishment shall furnish any information requested by either such Committee relating to any activ ity or responsibility.

# 3 SEC. 212. USE OF FUNDS FOR SCIENTIFIC CONSULTATIONS 4 OR EXTRAORDINARY EXPENSES.

Funds appropriated under section 103 may be used
for scientific consultations or extraordinary expenses upon
the authority of the Administrator, but not to exceed
\$35,000 -

#### 9 SEC. 213. REPORTING REQUIREMENTS.

10 (a) REPORTING PERIOD. Section 206(a) of the Na11 tional Aeronautics and Space Act of 1958 (42 U.S.C.
12 2476(a)) is amended—

13 (1) by striking "January" and inserting "May";
14 and

15 (2) by striking "calendar" and inserting "fis16 cal".

(b) PROTECTION OF COMMERCIALLY VALUABLE INFORMATION. Section 303 of the National Aeronautics
and Space Act of 1958 (42 U.S.C. 2454) is amended by
adding at the end the following:

21 "(c)(1) The Administrator may delay, for a period 22 not to exceed 5 years, the unrestricted public disclosure 23 of technical data, related to a competitively sensitive tech-24 nology, in the possession of, or under the control of, the 25 Administration that has been generated in the performance of experimental, developmental, or research activities
 or programs conducted by, or funded in whole or in part
 by, the Administration, if the technical data has signifi cant value in maintaining leadership or competitiveness,
 in civil and governmental aeronautical and space activities
 by the United States industrial base.

7 "(2) The Administrator shall publish biannually in the Federal Register a list of all competitively sensitive 8 9 technology areas which it believes have a significant value in maintaining the United States leadership or competi-10 tiveness in civil and governmental aeronautical and space 11 activities. The list shall be generated after consultation 12 with appropriate Government agencies and a diverse cross 13 section of companies— 14

15 <u>"(A)</u> that conduct a significant level of re 16 search, development, engineering, and manufactur 17 ing in the United States; and

18 <u>"(B)</u> the majority ownership or control of which
19 is held by United States citizens.

20 <sup>((3)</sup> The Administrator shall provide an opportunity 21 for written objections to the list within a 60-day period 22 after it is published. After the expiration of that 60-day 23 period, and after consideration of all written objections re-24 ceived by the Administrator during that period, NASA shall issue a final list of competitively sensitive technology
 areas.

3 "(4) For purposes of this subsection, the term 'tech-4 nical data' means any recorded information, including computer software, that is or may be directly applicable 5 to the design, engineering, development, production, man-6 7 ufacture, or operation of products or processes that may have significant value in maintaining leadership or com-8 9 petitiveness in civil and governmental aeronautical and space activities by the United States industrial base.". 10

#### 11 SEC. 214. INDEPENDENT RESEARCH AND DEVELOPMENT.

12 The Congress finds that it is appropriate for costs contributed by a contractor under a cooperative agreement 13 with the National Aeronautics and Space Administration 14 15 to be considered as allowable independent research and development costs, for purposes of section 31.205-18 of the 16 Federal Acquisition Regulations if the work performed 17 would have been allowable as contractor independent re-18 search and development costs had there been no coopera-19 tive agreement. The Administration shall seek a revision 20 to that section of the Federal Acquisition Regulations to 21 reflect the intent of the Congress expressed in the preced-22 23 ing sentence.

#### 1 SEC. 215. RESTRUCTURING OF THE EARTH OBSERVING SYS-

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#### TEM DATA AND INFORMATION SYSTEM.

3 The Administrator is prohibited from restructuring or downscaling the baseline plan for the Earth Observing 4 5 System Data and Information System in place at the time of the President's budget submission for NASA for fiscal 6 7 year 1996 unless, 60 days before undertaking such action, the Administrator has submitted to the Committee on 8 Commerce, Science, and Transportation of the Senate and 9 the Committee on Science of the House of Representatives 10 a written report containing 11

12 (1) a detailed description of the planned agency
13 action;

14 (2) the reasons and justifications for such ac15 tion;

16 (3) an analysis of the cost impact of such ac17 tion;

(4) an analysis of the impact of the action on 18 19 the scientific benefits of the program and the effect 20 of the action on the expected applications of the sat-21 ellite data from the System in such areas as global 22 climate research, land-use planning, state and local 23 government management, mineral exploration, agri-24 culture, forestry, national security, and any other 25 areas that the Administrator deems appropriate;

(5) an analysis of the impact of the action on
 the United States Global Climate Change Research
 program and international global climate change re search activities; and

5 (6) an explanation of what measures, if any, 6 are planned by NASA to compensate for any likely 7 reductions in the scientific value and data collection, 8 processing, and distribution capabilities of the Sys-9 tem as a result of the action.

10 TITLE III—COMMERCIAL SPACE LAUNCH ACT

11

#### AMENDMENTS

#### 12 SEC. 301. AMENDMENT OF TITLE 49.

Except as otherwise expressly provided, whenever in this title an amendment or repeal is expressed in terms of an amendment to, or repeal of, a section or other provision, the reference shall be considered to be made to a section or other provision of title 49, United States Code. **SEC. 302. AMENDMENT OF SECTION 70101.** 

Section 70101 (relating to findings and purposes) is
amended—

21 (1) by inserting "microgravity research," after
22 "information services," in subsection (a)(3);

23 (2) by inserting "commercial space transpor24 tation services, including in space transportation ac25 tivities and" after "providing" in subsection (a)(4);

1	(3) by striking "commercial launch vehicles" in
2	subsection (a)(5) and inserting ''commercial space
3	transportation including commercial launch vehicles,
4	in-space transportation activities, reentry vehicles,";
5	(4) by inserting "in-space transportation, and
6	reentry" after "launch" in subsection (a)(6);
7	(5) by inserting '', in space transportation ac-
8	tivities, reentries" after "launches" each place it ap-
9	pears in subsection (a)(7);
10	(6) by striking ''and complementary facilities,
11	the providing of launch" in subsection (a)(8) and in-
12	serting ", in space transportation control sites, re-
13	entry sites, and complementary facilities, the provid-
14	ing of launch, in space transportation, and reentry";
15	(7) by inserting <u>''</u> , in-space transportation con-
16	trol sites, reentry sites," after "launch sites," in
17	subsection (a)(9);
18	(8) by striking ''launch vehicles'' in subsection
19	(b)(2) and inserting "commercial space transpor-
20	tation services, including launch vehicles, in space
21	transportation activities, reentry vehicles,";
22	(9) by inserting "; in space transportation vehi-
23	cle, and reentry" after "commercial launch" the first
24	place it appears in subsection (b)(3);

1	(10) by striking "commercial launch" the sec-
2	ond place it appears in subsection (b)(3); and
3	(11) by inserting '', in-space transportation ve-
4	hicle control facilities, and development of reentry
5	sites" after "facilities" in subsection (b)(4).
6	SEC. 303. AMENDMENT OF SECTION 70102.
7	Section 70102 (relating to definitions) is amended—
8	(1) by inserting ''from Earth, including a re-
9	entry vehicle and its payload, if any," after "and
10	any payload" in paragraph (3);
11	(2) by inserting '', including a reentry vehicle
12	and its payload, if any," after "object" the first
13	place it appears in paragraph (8);
14	(3) by redesignating paragraphs (9) through
15	(12) as paragraphs (16) through (19), respectively;
16	(4) by inserting after paragraph (8) the follow-
17	ing:
18	<del>''(9)</del> 'in space transportation vehicle' means any
19	vehicle designed to operate in space and designed to
20	transport any payload or object substantially intact
21	from one orbit to another orbit.
22	<del>''(10)</del> 'in-space transportation services'
23	means—

1	${}$ (A) those activities involved in the direct
2	transportation or attempted transportation of a
3	payload or object from one orbit to another;
4	<del>"(B) the procedures, actions, and activities</del>
5	necessary for conduct of those transportation
6	services; and
7	<del>"(C)</del> the conduct of transportation serv-
8	i <del>ces.</del>
9	<del>''(11)</del> 'in space transportation control site'
10	means a location from which an in-space transpor-
11	tation vehicle is controlled or operated (as such
12	terms may be defined in any license the Secretary is-
13	sues or transfers under this chapter).
14	<del>''(12)</del> 'reenter' and 'reentry' mean to return
15	purposefully, or attempt to return, a reentry vehicle
16	and payload, if any, from Earth orbit or outer space
17	to Earth.
18	<del>''(13)</del> 'reentry services' means—
19	
20	of a reentry vehicle and its payload, if any, for
21	<del>reentry;</del> and
22	<del>"(B)</del> the conduct of a reentry.
23	"(14) 'reentry site' means the location on
24	Earth to which a reentry vehicle is intended to

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return (as defined in a license the Secretary is-
sues or transfers under this chapter).
<del>''(15)</del> <del>'reentry vehicle' means any vehicle de-</del>
signed to return substantially intact from Earth
orbit or outer space to Earth.";
(5) by inserting "; in-space transportation ac-
tivities, or reentry services" after "launch services"
each place it appears in paragraph (18), as redesig-
nated.
SEC. 304. AMENDMENT OF SECTION 70103.
Section 70103(b) (relating to facilitating commercial
launches) is amended—
(1) by striking "LAUNCHES" in the caption and
inserting "SPACE ACTIVITIES";
(2) by striking "commercial space launches" in
paragraph (1) and inserting "commercial space
paragraph (1) and inserting "commercial space transportation services"; and
transportation services''; and
transportation services''; and (3) by striking "a space launch" in subsection
transportation services"; and (3) by striking "a space launch" in subsection (b)(2) and inserting "space transportation".
transportation services"; and (3) by striking "a space launch" in subsection (b)(2) and inserting "space transportation". SEC. 305. AMENDMENT OF SECTION 70104.
transportation services"; and (3) by striking "a space launch" in subsection (b)(2) and inserting "space transportation". SEC. 305. AMENDMENT OF SECTION 70104. Section 70104 (relating to restrictions on launches

1 "§ 70104. Restrictions on launches, in-space transportation ac-

2

tivities, operations, and reentries";

(2) by inserting ", an in-space transportation 3 4 operations site, reentry site, or reenter a reentry ve-5 hicle," after "operate a launch site" each place it 6 appears in subsection (a);

7 (3) by striking "launch or operation" in sub-8 sections (a) (3) and (4) and inserting "launch, in-9 space transportation activity, or reentry operation"; 10 (4) by striking subsection (b) and inserting the 11 following:

12 <del>''(b)</del> COMPLIANCE **WITH** PAYLOAD Require-MENTS. The holder of a license under this chapter may 13 launch a payload, operate an in-space transportation vehi-14 cle, or reenter a payload only if the payload or vehicle com-15 plies with all requirements of the laws of the United States 16 related to launching a payload, operating an in-space 17 transportation vehicle, or reentering a payload."; 18

19 (5) by striking the caption of subsection (c) and 20 the following: <del>"(c)</del> PREVENTING inserting 21 LAUNCHES, IN-SPACE TRANSPORTATION ACTIVITIES, 22 OR REENTRIES.-"; and

(6) by inserting "; in-space transportation ac-23 tivity, or reentry" after "the launch" each place it 24 25 appears in subsection (c).

#### 1 SEC. 306. AMENDMENT OF SECTION 70105.

Section 70105 (relating to license applications and
 requirements) is amended—

4 (1) by inserting ", an in-space transportation
5 control site, or a reentry site or the reentry of a re6 entry vehicle," after "operation of a launch site" in
7 subsection (b)(1); and

8 (2) by striking "or operation" and inserting in
9 lieu thereof ", in-space transportation activity, oper10 ation, or reentry" in subsection (b)(2)(A).

#### 11 SEC. 307. AMENDMENT OF SECTION 70106.

Section 70106(a) (relating to monitoring activities
 general requirements) is amended—

14 (1) by inserting ", in-space transportation con15 trol site, or reentry site" after "launch site"; and

16 (2) by inserting ", in space transportation vehi17 cle, or reentry vehicle" after "launch vehicle" each
18 place it appears.

#### 19 SEC. 308. AMENDMENT OF SECTION 70108.

20 Section 70108 (relating to prohibition, suspension, 21 and end of launches and operation of launch sites) is 22 amended—

23 (1) by striking the section designation and
 24 heading and inserting the following:

1	"§ 70108. Prohibition, suspension, and end of launches, in-space
2	transportation activities, reentries, or operation
3	of launch sites, in-space transportation control
4	sites, or reentry sites";
5	and
6	(2) by inserting ", in space transportation con-
7	trol site, in-space transportation activity, or reentry
8	site, or reentry of a reentry vehicle," in subsection
9	(a) after "operation of a launch site"; and
10	(3) by striking "launch or operation" in sub-
11	section (a) and inserting "launch, in-space transpor-
12	tation activity, operation, or reentry".
13	SEC. 309. AMENDMENT OF SECTION 70109.
14	(a) CAPTION.—The section designation and heading
15	of section 70109 (relating to preemption of scheduled
16	launches) is amended to read as follows:
17	<u>"§ 70109. Preemption of scheduled launches, in-space transpor</u>
18	tation activities, or reentries".
19	(b) Amendment of Subsection (a). Subsection
20	(a) is amended—
21	(1) by inserting "or reentry" after "ensure that
22	a <del>launch'';</del>
23	(2) by inserting ", reentry site," after "Govern-
24	ment launch site";

1	(3) by inserting ", nor shall an in-space trans-
2	portation activity or operation be preempted," after
3	<u>''launch property'' the first place it appears;</u>
4	(4) by inserting "or reentry date commitment"
5	after ''launch date commitment'';
6	(5) by inserting ''or reentry'' after ''obtained
7	for a launch";
8	(6) by inserting ", reentry site," after "access
9	to a launch site'';
10	(7) by inserting ", or services related to a re-
11	entry," after "amount for launch services";
12	(8) by inserting "or reentry" after "the sched-
13	uled launch''; and
14	(9) by adding at the end thereof the following:
15	"A licensee or transferee preempted from access to
16	a reentry site does not have to pay the Government
17	agency responsible for the preemption any amount
18	for reentry services attributable only to the sched-
19	uled reentry prevented by the preemption.".
20	(c) Amendment of Subsection (c). Subsection
21	(c) is amended by inserting "or reentry" after "prompt
22	launching'' in subsection (c).
23	SEC. 310. AMENDMENT OF SECTION 70110.
24	Section 70110 (relating to administrative hearings
25	and judicial review) is amended—
(1) by inserting "; in-space transportation ac-1 2 tivity, or reentry" after "prevent the launch" in sub-3 section (a)(2); and (B) by inserting ", in-space transportation 4 5 control site, in-space transportation activity, reentry site, or reentry of a reentry vehicle," after 6 "operation of a launch site" in subsection 7 (a)(3)(B). 8 9 SEC. 311. AMENDMENT OF SECTION 70111. 10 Section 70111 (relating to acquiring United States 11 Government property and services) is amended— (1) by inserting ", in-space transportation ac-12 tivities, or reentry services" after "launch services" 13 14 each place it appears in subsection (a); (2) by inserting ", or reentry property," after 15 "launch property" in subsection (a)(2)(A); 16 17 (3) by inserting ", or reentry property," after 18 <u>"'launch property" in subsection (a)(2)(B);</u> 19 (4) by inserting ", in-space transportation activity, or reentry" after "commercial launch" each 20 21 place it appears in subsection (b)(1); (5) by inserting ", in-space transportation ac-22 23 tivities or services, or reentry services" after "launch services" in subsection (b)(2)(C); and 24

(6) by striking subsection (d) and inserting the
 following:

3 <del>''(d)</del> **COLLECTION** BY **OTHER GOVERNMENTAL** HEADS.—The head of a department, agency, or instru-4 mentality of the Government may collect a payment for 5 any activity involved in producing a launch vehicle, in-6 7 space transportation vehicle, or reentry vehicle or its pay-8 load for launch, in space transportation activity, or re-9 entry if the activity was agreed to by the owner or manufacturer of the launch vehicle, in-space transportation ve-10 hicle, reentry vehicle, or payload.". 11

#### 12 SEC. 312. AMENDMENT OF SECTION 70112.

13 Section 70112 (relating to liability insurance and fi14 nancial responsibility requirements) is amended—

15 (1) by inserting "or reentry, or to the oper16 ations of each in-space transportation vehicle" after
17 "one launch" in subsection (a)(3);

(2) by inserting ", in-space transportation activities, or reentry services" after "launch services"
each place it appears in subsections (a)(4), (b)(1),
and (b)(2);

22 (3) by inserting "applicable" after "carried out
23 under the" in subsections (b)(1) and (2);

24 (4) by striking ", Space, and Technology" in
25 subsection (d);

(5) by inserting ", IN-SPACE TRANSPORTATION
 ACTIVITIES, OR REENTRIES" after "LAUNCHES" in
 the caption of subsection (e); and

4 (6) by inserting ", in space transportation con5 trol site, or control of an in-space transportation ve6 hicle or activity, or reentry site or a reentry" after
7 "launch site" in subsection (e).

#### 8 SEC. 313. AMENDMENT OF SECTION 70113.

9 Section 70113 (relating to paying claims exceeding 10 liability insurance and financial responsibility require-11 ments) is amended by inserting ", operation of one in-12 space transportation vehicle, or one reentry" after "one 13 launch" each place it appears in subsections (a)(1), (d)(1), 14 and (d)(2).

## 15 SEC. 314. AMENDMENT OF SECTION 70115.

Section 70115(b)(1)(D)(i) (relating to enforcement
and penalty general authority) is amended—

(1) by inserting ", in-space transportation control site, or reentry site," after "launch site,"; and
(2) by inserting ", in-space transportation vehicle, or reentry vehicle" after "launch vehicle" each
place it appears.

39

#### 1 SEC. 315. AMENDMENT OF SECTION 70117.

Section 70117 (relating to relationship to other exec utive agencies, laws, and international obligations) is
 amended—

5 (1) by inserting ", perform in space transpor-6 tation activities or operate an in space transpor-7 tation control site or reentry site, or reenter a re-8 entry vehicle" after "launch site" in subsection (a); 9 (2) by inserting ", perform an in space trans-10 portation activity, or reentry" after "a space 11 launch" in subsection (d);

12 (3) by striking subsections (f) and (g), and in13 serting the following:

14 "(f) LAUNCH NOT AN EXPORT OR IMPORT.—A 15 launch vehicle, reentry vehicle, or payload that is launched 16 or reentered is not, because of the launch or reentry, an 17 export or import for purposes of a law controlling exports 18 or imports.

19 <u>"(g) NONAPPLICATION. This chapter does not apply</u>
20 to—

21 "(1) a launch, in space transportation activity,
22 reentry, operation of a launch vehicle, in space
23 transportation vehicle, or reentry vehicle, or of a
24 launch site, in space transportation control site, or
25 reentry site, or other space activity the Government
26 carries out for the Government; or

"(2) planning or policies related to the launch,
 in space transportation activity, reentry, or oper ation.".

#### 4 SEC. 316. REPORT TO CONGRESS.

5 Chapter 701 is amended by adding at the end thereof6 the following new section:

#### 7 "§ 70120. Report to Congress

8 "The Secretary of Transportation shall submit to
9 Congress an annual report to accompany the President's
10 budget request that—

11 "(1) describes all activities undertaken under 12 this chapter, including a description of the process 13 for the application for and approval of licenses under 14 this chapter and recommendations for legislation 15 that may further commercial launches and reentries; 16 and

17 <u>''(2)</u> reviews the performance of the regulatory
18 activities and the effectiveness of the Office of Com19 mercial Space Transportation.".

#### 20 SEC. 317. AMENDMENT OF TABLE OF SECTIONS.

21 The table of sections for chapter 701 of title 49,
22 United States Code, is amended—

23 (1) by amending the item relating to section
24 70104 to read as follows:

"70104. Restrictions on launches, in space transportation activities, operations, and reentries";

1	(2) by amending the item relating to section
2	70108 to read as follows:
	"70108. Prohibition, suspension, and end of launches, in space transportation activities, reentries, or operation of launch sites, in space trans- portation control sites, or reentry sites";
3	(3) by amending the item relating to section
4	70109 to read as follows:
	"70109. Preemption of scheduled launches, in space transportation activities, or reentries";
5	and
6	(4) by adding at the end the following new
7	<del>item:</del>
	<del>"70120.</del> Report to Congress".
8	SEC. 318. REGULATIONS.
9	The Secretary of Transportation shall issue regula-
10	tions under chapter 701 of title 49, United States Code,
11	that include—
12	(1) guidelines for industry to obtain sufficient
13	insurance coverage for potential damages to third
14	<del>parties;</del>
15	(2) procedures for requesting and obtaining li-
16	censes to operate a commercial launch vehicle and
17	reentry vehicle;
18	
10	(3) procedures for requesting and obtaining op-
18 19	(3) procedures for requesting and obtaining op- erator licenses for launch and reentry; and

1 SEC. 319. SPACE ADVERTISING.

(a) DEFINITION. Section 70102, as amended by section 303, is amended by redesignating paragraphs (12)
through (19) as (13) through (20), respectively, and by
inserting after paragraph (11) the following new paragraph:

7 <u>''(12)</u> 'obtrusive space advertising' means ad-8 vertising in outer space that is capable of being rec-9 ognized by a human being on the surface of the 10 earth without the aid of a telescope or other techno-11 logical device;".

12 (b) PROHIBITION. Chapter 701 is amended by in13 serting after section 70109 the following new section:

#### 14 "§ 70109a. Space advertising

15 <u>"(a) LICENSING. Notwithstanding the provisions of</u>
16 this chapter or any other provision of law, the Secretary
17 shall not—

18 <u>"(1) issue or transfer a license under this chap-</u>
19 ter; or

20 <u>"(2)</u> waive the license requirements of this
21 chapter;

22 for the launch of a payload containing any material to be23 used for the purposes of obtrusive space advertising.

24 "(b) LAUNCHING. No holder of a license under this
25 chapter may launch a payload containing any material to
26 be used for purposes of obtrusive space advertising on or
•\$ 1048 RS

after the date of enactment of the National Aeronautics
 and Space Administration Authorization Act, Fiscal Year
 1996.

4 "(c) COMMERCIAL SPACE ADVERTISING. — Nothing in
5 this section shall apply to nonobtrusive commercial space
6 advertising, including advertising on commercial space
7 transportation vehicles, space infrastructure, payloads,
8 space launch facilities, and launch support facilities.".

9 (c) Negotiation With Foreign Launching Na-10 <del>tions.</del>

11 (1) The President is requested to negotiate with 12 foreign launching nations for the purpose of reach-13 ing an agreement or agreements that prohibit the 14 use of outer space for obtrusive space advertising 15 purposes.

16 (2) It is the sense of Congress that the Presi-17 dent should take such action as is appropriate and 18 feasible to enforce the terms of any agreement to 19 prohibit the use of outer space for obtrusive space 20 advertising purposes.

21 (3) As used in this subsection, the term "for22 eign launching nation" means a nation—

23 (A) which launches, or procures the
24 launching of, a payload into outer space; or

(B) from whose territory or facility a pay load is launched into outer space.

3 (d) CLERICAL AMENDMENT. The table of sections
4 for chapter 701 is amended by inserting the following
5 after the item relating to section 70109:

"70109a. Space advertising".

## 6 SECTION 1. SHORT TITLE.

7 This Act may be cited as the "National Aeronautics
8 and Space Administration Authorization Act, Fiscal Year
9 1996".

## 10 SEC. 2. DEFINITIONS.

11 For the purposes of this Act—

(1) the term "Administrator" means the Administrator of the National Aeronautics and Space Administration:

*(2) the term "NASA" means the National Aero- nautics and Space Administration; and*

17 (3) the term "institution of higher education"
18 has the meaning given such term in section 1201(a)

19 of the Higher Education Act of 1965 (20 U.S.C.

20 *1141(a)*).

21 TITLE I—AUTHORIZATION OF APPROPRIATIONS

## 22 SEC. 101. HUMAN SPACE FLIGHT.

23 There are authorized to be appropriated to the Na24 tional Aeronautics and Space Administration for Human

Space Flight the following amounts, to become available Oc tober 1, 1995:

3 (1) Space Station, \$1,818,800,000.

- 4 (2) Russian Cooperation, \$129,200,000.
- 5 (3) Space Shuttle, \$3,031,800,000.

6 (4) Payload and Utilization Operations,
7 \$293,000,000.

## 8 SEC. 102. SCIENCE, AERONAUTICS, AND TECHNOLOGY.

9 There are authorized to be appropriated to the Na-10 tional Aeronautics and Space Administration for Science, 11 Aeronautics, and Technology the following amounts, to be-12 come available October 1, 1995:

(1) Space Science, \$1,958,900,000, of which
\$48,700,000 shall be allocated to the Stratospheric
Observatory for Infrared Astronomy, \$15,000,000
shall be allocated to the Space Infrared Telescope Facility, and \$30,000,000 shall be allocated to the New
Millennium initiative.

19 (2) Life and Microgravity Sciences and Applica20 tions, \$507,000,000, of which \$3,000,000 shall be allo21 cated for the construction of an addition to the Micro22 gravity Development Laboratory, Marshall Space
23 Flight Center.

24 (3) Mission to Planet Earth, \$1,360,100,000, of
25 which \$17,000,000 shall be allocated to the construc-

tion of the Earth Systems Science Building, Goddard
 Space Flight Center.

3 (4) Aeronautical Research and Technology,
4 \$891,300,000, of which \$5,400,000 shall be allocated
5 to the modernization of the Unitary Plan Wind Tun6 nel Complex, Ames Research Center.

(5) Space Access and Technology, \$766,600,000, 7 8 of which at least \$70,000,000 shall be allocated to support a shuttle flight for the Shuttle Imaging 9 10 Radar-C. of which \$5.000.000 shall be used to establish a Rural Technology Transfer and Commercializa-11 tion Center for the Rocky Mountains and Upper 12 Plains States region, and of which \$159,000,000 shall 13 be allocated to the Reusable Launch Vehicle program. 14 (6) Communications Services. 15 Mission

16 \$461,300,000.

(7) Academic Programs, \$104,700,000, of which
\$3,000,000 shall be allocated to support the establishment of an Upper Plains States regional science education and outreach center and of which \$1,000,000
shall be allocated to establish a Rural Teacher Resource Center.

## 23 SEC. 103. MISSION SUPPORT.

24 There are authorized to be appropriated to the Na-25 tional Aeronautics and Space Administration for Mission

1 Support the following amounts, to become available October

2	1, 1995:
3	(1) Safety, Reliability, and Quality Assurance,
4	\$37,600,000.
5	(2) Space Communications Services,
6	\$219,400,000.
7	(3) Research and Program Management, includ-
8	ing personnel and related costs, travel, and research
9	operations support, \$2,047,800,000.
10	(4) Construction of Facilities, including land ac-
11	quisition, \$135,000,000, including the following:
12	(A) Restoration of Flight Systems Research
13	Laboratory, Ames Research Center;
14	(B) Restoration of chilled water distribution
15	system, Goddard Space Flight Center;
16	(C) Replace chillers, various buildings, Jet
17	Propulsion Laboratory;
18	(D) Rehabilitation of electrical distribution
19	system, White Sands Test Facility, Johnson
20	Space Center;
21	(E) Replace main substation switchgear
22	and circuit breakers, Johnson Space Center;
23	(F) Replace 15kv load break switches, Ken-
24	nedy Space Center;

1

2	ment Building, Lewis Research Center;
3	(H) Restoration of high pressure air com-
4	pressor system, Marshall Space Flight Center;
5	(I) Restoration of Information and Elec-
6	tronic Systems Laboratory, Marshall Space
7	Flight Center;
8	(J) Restoration of canal lock, Stennis Space
9	Center;
10	(K) Restoration of primary electrical dis-
11	tribution system, Wallops Flight Facility;
12	(L) Repair of facilities at various locations,
13	not in excess of \$1,500,000 per project;
14	(M) Rehabilitation and modification of fa-
15	cilities at various locations, not in excess of
16	\$1,500,000 per project;
17	(N) Minor construction of new facilities and
18	additions to existing facilities at various loca-
19	tions, not in excess of \$1,500,000 per project;
20	(O) Facility planning and design, not oth-
21	erwise provided for; and
22	(P) Environmental compliance and restora-
23	tion.

49

1 SEC. 104. INSPECTOR GENERAL.

2 There are authorized to be appropriated to the National Aeronautics and Space Administration for Inspector 3 General \$17,300,000, to become available October 1, 1995. 4 5 SEC. 105. OFFICE OF COMMERCIAL SPACE TRANSPOR-6 TATION. 7 There are authorized to be appropriated to the Office of Commercial Space Transportation of the Department of 8 Transportation \$7,000,000, to become available October 1, 9 1995. 10 TITLE II—LIMITATIONS AND GENERAL 11 12 PROVISIONS 13 SEC. 201. SPACE STATION LIMITATION. The aggregate amount authorized to be appropriated 14 for Space Station and related activities under sections 101, 15 102, and 103 shall not exceed \$2,100,000,000. 16 17 SEC. 202. EXPERIMENTAL PROGRAM TO STIMULATE COM-18 PETITIVE RESEARCH. 19 Of the amounts appropriated under sections 101 and 20 102, \$6,900,000 are authorized for the Experimental Program to Stimulate Competitive Research in accordance 21 with title III of the National Aeronautics and Space Ad-22 ministration Act, Fiscal Year 1993 (Public Law 102–588; 23 106 Stat. 5119). 24 25 SEC. 203. SPECIAL TECHNOLOGY ENHANCEMENT GRANTS.

26 (a) IN GENERAL.—

(1) GRANTS.—The Administrator shall make up 1 2 to 4 special technology enhancement grants to areas or States that have not participated fully in the Ad-3 ministration's aeronautical and space programs in 4 5 order to enable such areas or States to increase their capabilities in technology development, utilization, 6 7 and transfer in aeronautics, space science, and related areas. At least one such grant shall be made available 8 to a consortium of States, each one of which has an 9 average population density of less than 12.3 persons 10 11 per square mile, based on data for 1993 from the Bureau of the Census. 12 (2) ACTIVITIES.—Grants made under this section 13 14 shall be available for— (A) assessment of resources and needs; 15 (B) development of infrastructure, including 16 17 incubators and prototype demonstration facili-18 ties: 19 (C) collaborations with industry; (D) expansion of capabilities in procure-20 21 ment: (E) development of technology transfer and 22 23 commercialization support capabilities; (F) activities to increase participation in 24 25 the Small Business Innovation Research pro-

1	gram and other NASA research, development,
2	and technology utilization and transfer pro-
3	grams;
4	(G) relevant research of interest to NASA;
5	and
6	(H) such other activities as the Adminis-
7	trator shall deem appropriate.
8	(3) Special consideration.—In making
9	grants under this section, the Administrator shall give
10	special consideration to proposals that—
11	(A) will build upon and expand a develop-
12	ing research and technology base, and
13	(B) will insure a lasting research and devel-
14	opment and technology development and transfer
15	capability.
16	(b) ELIGIBLE ENTITIES.—Grants under subsection
17	(a)(1) may be made to—
18	(1) State and local governments;
19	(2) institutions of higher education; and
20	(3) organizations with expertise in research and
21	development, technology development, and technology
22	transfer in areas of interest to NASA.
23	(c) Funding of Program.—Of the amounts author-
24	ized in section 102 for the Space Access and Technology

account, \$15,000,000 are authorized to be used for grants
 under subsection (a).

#### 3 SEC. 204. CLEAR LAKE DEVELOPMENT FACILITY.

4 The Administrator is authorized to acquire, for no more than \$35,000,000, a certain parcel of land, together 5 with existing facilities, located on the site of the property 6 referred to as the Clear Lake Development Facility, Clear 7 Lake, Texas, comprising approximately 13 acres and in-8 cluding a light manufacturing facility, an avionics develop-9 ment facility, and an assembly and test building which 10 shall be modified for use as a neutral buoyancy laboratory 11 in support of human space flight activities. 12

## 13 SEC. 205. YELLOW CREEK FACILITY.

Notwithstanding any other provision of law or regula-14 15 tion, the National Aeronautics and Space Administration 16 (NASA) is authorized to convey, without reimbursement, to the State of Mississippi, all rights, title, and interest of the 17 United States of the United States in the property known 18 as the Yellow Creek Facility and consisting of approxi-19 mately 1,200 acres near the city of Iuka, Mississippi, in-20 cluding all improvements thereon and any personal prop-21 22 erty owned by NASA that is currently located on-site and which the State of Mississippi requires to facilitate the 23 transfer: Provided, That appropriated funds shall be used 24 this conveyance: Provided further, effect That 25 to

\$10,000,000 in appropriated funds otherwise available to 1 NASA shall be transferred to the State of Mississippi to 2 be used in the transition of the facility: Provided further, 3 4 That each Federal agency with prior contact to the site shall remain responsible for any and all environmental remedi-5 ation made necessary as a result of its activities on the site: 6 Provided further, That in consideration of this conveyance, 7 NASA may require such other terms and conditions as the 8 Administrator deems appropriate to protect the interests of 9 the United States: Provided further, That the conveyance 10 of the site and the transfer of the funds to the State of Mis-11 sissippi shall occur not later than 30 days after the date 12

13 of enactment of this Act.

## 14 SEC. 206. RADAR REMOTE SENSING SATELLITES.

15 (a) FINDINGS.—The Congress finds that—

16 (1) radar satellites represent one of the most im17 portant developments in remote sensing satellite tech18 nology in recent years;

(2) the ability of radar satellites to provide highquality Earth imagery regardless of cloud cover and
to provide three-dimensional pictures of the Earth's
surface when the satellites are flown in combination
dramatically enhance conventional optical remote
sensing satellite capabilities and usefulness;

1	(3) the National Aeronautics and Space Admin-
2	istration has developed a unique background and ex-
3	pertise in developing and operating radar satellites as
4	a result of their activities connected with its radar
5	satellites, Shuttle Imaging Radar (SIR)-A, SIR-B,
6	and SIR-C, which has flown twice on the Space Shut-
7	tle;
8	(4) other nations currently have operational
9	radar satellite systems, including Japan and Western
10	Europe, with other spacefaring nations expected to
11	develop such systems in the near future; and
12	(5) the development of an operational radar sat-
13	ellite program at NASA featuring free-flying satellites
14	and a related ground system is critical to maintain
15	United States leadership in remote sensing satellite
16	technology and is important to our national security
17	and international competitiveness.
18	(b) POLICY.—It is the policy of the United States
19	that—
20	(1) NASA should develop and operate a radar
21	satellite program as soon as practicable;
22	(2) NASA should build on the experience and
23	knowledge gained from its previous radar endeavors;

(3) NASA should work with other Federal agen cies and, as appropriate, with other spacefaring na tions, in its radar satellite activities; and

4 (4) NASA should make maximum use of existing
5 National remote sensing assets such as the Landsat
6 system, activities connected with the Mission to Plan7 et Earth, and the data management facilities of the
8 Department of the Interior in all of its radar satellite
9 activities.

10 (c) PROGRAM REQUIREMENTS.—NASA shall initiate a program to develop and operate a radar satellite pro-11 gram. The program shall employ the most advanced radar 12 satellite technology currently available. To the maximum 13 extent possible, all of the data processing, dissemination, 14 15 and archiving functions shall be performed by the Department of the Interior. The program should be planned in 16 such a way that the data from the radar satellite system 17 are converted into a broad range of informational products 18 with research, commercial, and government applications 19 and any other applications that are in the public interest 20 21 and that such products are distributed over the widest user 22 community that is practicable, including industry, academia, research institutions, local and State governments, 23 and other Federal agencies. The program should coordinate 24

with, and make appropriate use of, other remote sensing
 satellite programs, such as the Landsat program.

3 (d) PLAN.—Within 90 days after the enactment of this
4 Act, the Administrator shall submit a detailed plan for im5 plementation of the radar satellite program to the Commit6 tee on Commerce, Science, and Transportation of the Senate
7 and the Committee on Science of the House of Representa8 tives. The plan should include—

9 (1) the goals and mission of the program;

(2) planned activities for the next 5 years to
achieve such goals and mission;

(3) strategies for maximizing the usefulness of
the satellite data to the scientific and academic communities, the private sector, all levels of government,
and the general public;

(4) concepts for integrating the program with 16 17 other related NASA activities (such as Mission to 18 Planet Earth), the Landsat program, and other cur-19 rent and emerging remote sensing satellite programs 20 and activities in the Federal government and all other public and private sectors so that the program 21 22 complements and strengthens such programs and activities and is not duplicative of these efforts; 23

24 (5) concepts developed in consultation with De25 partment of the Interior, for processing, archiving,

1	
I	and disseminating the satellite data using, to the
2	maximum extent possible, existing Federal govern-
3	ment programs and assets at the Department of the
4	Interior and other Federal agencies;
5	(6) targets and timetables for undertaking spe-
6	cific activities and actions within the program;
7	(7) a 5-year budget profile for the program; and
8	(8) a comparison between the program and the
9	radar satellite programs of other spacefaring nations,
10	addressing their respective costs, capabilities, and
11	other relevant features.
12	(e) AUTHORIZATION.—Of the funds authorized in sec-
13	tion 102 for the Earth Probes account, the Administrator
14	shall allocate at least \$15,000,000 to the radar satellite pro-
15	gram to conduct Phase A and Phase B studies.
16	SEC. 207. STUDY OF THE HYDROLOGY OF THE UPPER MIS-
16 17	SEC. 207. STUDY OF THE HYDROLOGY OF THE UPPER MIS- SOURI RIVER BASIN.
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17	SOURI RIVER BASIN.
17 18 19	<i>SOURI RIVER BASIN.</i> The Administrator shall initiate a project to conduct
17 18 19	<i>SOURI RIVER BASIN.</i> The Administrator shall initiate a project to conduct research on the hydrology of the Upper Missouri River
17 18 19 20	SOURI RIVER BASIN. The Administrator shall initiate a project to conduct research on the hydrology of the Upper Missouri River Basin. The project shall be part of the Mission to Planet
<ol> <li>17</li> <li>18</li> <li>19</li> <li>20</li> <li>21</li> </ol>	SOURI RIVER BASIN. The Administrator shall initiate a project to conduct research on the hydrology of the Upper Missouri River Basin. The project shall be part of the Mission to Planet Earth program and shall employ satellite observations, sur-
<ol> <li>17</li> <li>18</li> <li>19</li> <li>20</li> <li>21</li> <li>22</li> <li>23</li> </ol>	SOURI RIVER BASIN. The Administrator shall initiate a project to conduct research on the hydrology of the Upper Missouri River Basin. The project shall be part of the Mission to Planet Earth program and shall employ satellite observations, sur- face-based radar data, and ground-based hydrological and
<ol> <li>17</li> <li>18</li> <li>19</li> <li>20</li> <li>21</li> <li>22</li> <li>23</li> <li>24</li> </ol>	SOURI RIVER BASIN. The Administrator shall initiate a project to conduct research on the hydrology of the Upper Missouri River Basin. The project shall be part of the Mission to Planet Earth program and shall employ satellite observations, sur- face-based radar data, and ground-based hydrological and other scientific measurements to develop quantitative mod-

into NASA's activities connected with the multiagency 1 Global Energy and Water Cycle Experiment to understand 2 the interactions between the atmosphere and land surfaces. 3 In implementing the project, NASA shall coordinate and 4 consult with other appropriate federal agencies, including 5 the Department of Commerce, the Department of the Inte-6 7 rior, and the National Science Foundation. To the maximum extent possible, NASA shall employ the assistance of 8 universities, local and State governments, industry, and 9 any other appropriate entities from the Upper Missouri 10 11 River Basin region to carry out this program and the Administrator is authorized to support the project-related 12 work of such entities with grants, technical advice, equip-13 ment, in-kind help, and any other type of appropriate as-14 15 sistance. Within 90 days after the enactment of this Act, the Administrator shall submit a plan for the implementa-16 tion of this project, which shall set forth the goals, project 17 costs, planned activities, and overall strategies for the 18 project, to the Committee on Commerce, Science, and 19 20 Transportation of the Senate and the Committee on Science 21 of the House of Representatives. Of the funds authorized in 22 section 102 for Mission to Planet Earth, at least 23 \$10,000,000 shall be allocated by the Administrator to the Upper Missouri River Basin project. 24

1 SEC. 208. SHUTTLE PRIVATIZATION.

2 (a) The Administrator is hereby directed to conduct a study of the feasibility of implementing the recommenda-3 tion of the Independent Shuttle Management Review Team 4 5 that NASA transition towards the privatization of the Shuttle. The study shall identify, discuss, and, where pos-6 7 sible, present options for resolving, the major policy and legal issues that must be addressed before the Shuttle is 8 privatized, including, but not limited to, the following 9 10 issues—

(1) whether the government or the Shuttle contractor should own the Shuttle orbiters and Shuttle
ground facilities;

(2) whether the federal government should indemnify the contractor for any third party liability
arising from Shuttle operations, and, if so, under
what terms and conditions;

(3) whether commercial payloads should be allowed to be launched on the Shuttle and whether any
classes of payloads should be made ineligible for
launch consideration;

(4) whether NASA and federal government payloads should have priority over non-federal government payloads in the Shuttle launch assignments and
what policies should be developed to prioritize among
payloads generally;

(5) whether the public interest requires that cer tain Shuttle functions continue to be performed by the
 federal government; and

4 (6) whether privatization of the Shuttle would
5 produce any significant cost savings and, if so, how
6 much cost savings.

7 (b) Within 60 days of the enactment of this Act, NASA
8 shall complete the study and shall submit a report on that
9 study to the Committee on Commerce, Science, and Trans10 portation of the Senate and the Committee on Science of
11 the House of Representatives.

(c) As a transitional step towards Shuttle privatiza-12 tion, NASA shall take all necessary and appropriate actions 13 to consolidate Shuttle contractor activities under one prime 14 contractor and, within 180 days of the enactment of this 15 Act, report to the Committee on Commerce, Science, and 16 Transportation of the Senate and the Committee on Science 17 of the House of Representatives on those actions. If NASA 18 has failed to complete such consolidation by the expiration 19 of the 180-day period, the report shall explain the reasons 20 for that failure and describe the steps being taken by NASA 21 22 to finalize the consolidation as expeditiously as possible.

#### 1 SEC. 209. USE OF FUNDS FOR CONSTRUCTION.

2 (a) AUTHORIZED USES.—The Administrator may use
3 funds appropriate for purposes other than those appro4 priated for—

5 (1) construction of facilities;

6 (2) research and program management, exclud7 ing research operations support; and

8 (3) Inspector General,

9 for the construction of new facilities and additions to, re10 pair of, rehabilitation of, or modification of, existing facili11 ties at any location in support of the purposes for which
12 such funds are appropriated.

(b) LIMITATION.—None of the funds used pursuant to 13 subsection (a) may be expended for a project, the estimated 14 cost of which to the National Aeronautics and Space Ad-15 ministration, including collateral equipment, exceeds 16 \$750,000, until 30 days have passed after the Administrator 17 has notified the Committee on Science of the House of Rep-18 19 resentatives and the Committee on Commerce, Science, and Transportation of the Senate of the nature, location, and 20 21 estimated cost to the National Aeronautics and Space Administration of such project. 22

## 23 SEC. 210. CONSTRUCTION OF FACILITIES.

24 (a) REPROGRAMMING FOR CONSTRUCTION OF FACILI25 TIES.—If the Administrator determines that—

(1) new developments in the national program of 1 2 aeronautical and space activities have occurred; (2) such developments require the use of addi-3 4 tional funds for the purpose of construction, expansion, or modification of facilities at any location; and 5 (3) deferral of such action until the enactment of 6 the next National Aeronautics and Space Administra-7 8 tion authorization Act would be inconsistent with the 9 interest of the Nation in aeronautical and space 10 sciences: 11 the Administrator may use the amounts authorized for construction of facilities pursuant to this Act or previous Na-12 tional Aeronautics and Space Administration authoriza-13

tion Acts for such purposes. The amounts may be used to 14 15 acquire, construct, convert, rehabilitate, or install temporary or permanent public works, including land acquisi-16 tion, site preparation, appurtenances, utilities, and equip-17 ment. The Administrator may use such amounts for facility 18 19 consolidations, closures, and demolition required to downsize the NASA physical plant to improve operations 20 and reduce costs. 21

- 22 (c) LIMITATIONS.—
- 23 (1) Amounts appropriated for a construction-of24 facilities project—

(A) may be varied upward by 10 percent at the discretion of the Administrator; or

(B) may be varied upward by 25 percent to 3 4 meet unusual cost variations after the expiration of 30 days following a report on the cir-5 6 cumstances of such action by the Administrator 7 to the Committee on Commerce. Science. and 8 Transportation of the Senate and the Committee on Science of the House of Representatives. The 9 aggregate amount authorized to be appropriated 10 for construction of facilities shall not be in-11 creased as a result of actions authorized under 12 13 this section.

14 (2) No amounts may be obligated for a construc-15 tion-of-facilities project until a period of 30 days has passed after the Administrator or the Administrator's 16 17 designee has transmitted to the Committee on Science 18 of the House of Representatives, and to the Committee 19 on Commerce, Science, and Transportation of the 20 Senate, a written report describing the nature of the 21 acquisition, construction, conversion, rehabilitation, 22 or installation, its cost, and the reasons therefor.

23 (d) TITLE TO FACILITIES.—If funds are used pursuant
24 to subsection (a) for grants to institutions of higher edu25 cation, or to nonprofit organizations whose primary pur-

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pose is the conduct of scientific research, for purchase or 1 construction of additional research facilities, title to such 2 facilities shall be vested in the United States unless the Ad-3 ministrator determines that the national program of aero-4 nautical and space activities will best be served by vesting 5 title in the grantee institution or organization. Each such 6 7 grant shall be made under such conditions as the Administrator shall determine to be required to ensure that the 8 United States will receive therefrom benefits adequate to 9 justify the making of that grant. 10

## 11 SEC. 211. AVAILABILITY OF APPROPRIATED AMOUNTS.

To the extent provided in appropriations Acts, appropriations authorized under this Act may remain available
without fiscal year limitation.

## 15 SEC. 212. CONSIDERATION BY COMMITTEES.

16 Notwithstanding any other provision of this Act—

17 (1) no amount appropriated pursuant to this
18 Act may be used for any program deleted by the Con19 gress from requests as originally made to either the
20 Committee on Science of the House of Representatives
21 or the Committee on Commerce, Science, and Trans22 portation of the Senate; and

23 (2) no amount appropriated pursuant to the Act
24 may be used for any program in excess of the amount

unless a period of 30 days has passed after the receipt by 3 such Committee of notice given by the Administrator or the 4 Administrator's designee containing a full and complete 5 statement of the action proposed to be taken and the facts 6 7 and circumstances relied upon in support of the proposed action. NASA shall keep those Committees fully and cur-8 rently informed with respect to all activities and respon-9 sibilities within their jurisdiction. Except as otherwise pro-10 vided by law, any Federal department, agency, or inde-11 pendent establishment shall furnish any information re-12 quested by either such Committee relating to any activity 13 or responsibility. 14

# 15 SEC. 213. USE OF FUNDS FOR SCIENTIFIC CONSULTATIONS 16 OR EXTRAORDINARY EXPENSES.

17 Funds appropriated under section 103 may be used
18 for scientific consultations or extraordinary expenses upon
19 the authority of the Administrator, but not to exceed
20 \$35,000.

# 21 SEC. 214. REPORTING REQUIREMENTS.

(a) REPORTING PERIOD.—Section 206(a) of the National Aeronautics and Space Act of 1958 (42 U.S.C.
24 2476(a)) is amended—

(1) by striking "January" and inserting "May";
 and

3 (2) by striking "calendar" and inserting "fis4 cal".

5 (b) PROTECTION OF COMMERCIALLY VALUABLE INFOR6 MATION.—Section 303 of the National Aeronautics and
7 Space Act of 1958 (42 U.S.C. 2454) is amended by adding
8 at the end the following:

(c)(1) The Administrator may delay, for a period not 9 to exceed 5 years, the unrestricted public disclosure of tech-10 nical data, related to a competitively sensitive technology, 11 in the possession of, or under the control of, the Administra-12 tion that has been generated in the performance of experi-13 mental, developmental, or research activities or programs 14 15 conducted by, or funded in whole or in part by, the Administration, if the technical data has significant value in 16 maintaining leadership or competitiveness, in civil and 17 governmental aeronautical and space activities by the 18 United States industrial base. 19

20 "(2) The Administrator shall publish biannually in 21 the Federal Register a list of all competitively sensitive tech-22 nology areas which it believes have a significant value in 23 maintaining the United States leadership or competitive-24 ness in civil and governmental aeronautical and space ac-25 tivities. The list shall be generated after consultation with appropriate Government agencies and a diverse cross sec tion of companies—

3 "(A) that conduct a significant level of research,
4 development, engineering, and manufacturing in the
5 United States; and

6 "(B) the majority ownership or control of which
7 is held by United States citizens.

8 "(3) The Administrator shall provide an opportunity 9 for written objections to the list within a 60-day period 10 after it is published. After the expiration of that 60-day 11 period, and after consideration of all written objections re-12 ceived by the Administrator during that period, NASA shall 13 issue a final list of competitively sensitive technology areas.

"(4) For purposes of this subsection, the term 'tech-14 nical data' means any recorded information, including 15 computer software, that is or may be directly applicable 16 to the design, engineering, development, production, manu-17 facture, or operation of products or processes that may have 18 significant value in maintaining leadership or competitive-19 ness in civil and governmental aeronautical and space ac-20 21 tivities by the United States industrial base.".

## 22 SEC. 215. INDEPENDENT RESEARCH AND DEVELOPMENT.

The Congress finds that it is appropriate for costs contributed by a contractor under a cooperative agreement
with the National Aeronautics and Space Administration

to be considered as allowable independent research and de-1 velopment costs, for purposes of section 31.205–18 of the 2 Federal Acquisition Regulations if the work performed 3 would have been allowable as contractor independent re-4 search and development costs had there been no cooperative 5 agreement. The Administration shall seek a revision to that 6 section of the Federal Acquisition Regulations to reflect the 7 intent of the Congress expressed in the preceding sentence. 8

# 9 SEC. 216. RESTRUCTURING OF THE EARTH OBSERVING SYS-

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#### TEM DATA AND INFORMATION SYSTEM.

11 The Administrator is prohibited from restructuring or downscaling the baseline plan for the Earth Observing Sys-12 tem Data and Information System in place at the time of 13 the President's budget submission for NASA for fiscal year 14 1996 unless, 60 days before undertaking such action, the 15 Administrator has submitted to the Committee on Com-16 merce, Science, and Transportation of the Senate and the 17 Committee on Science of the House of Representatives a 18 19 written report containing—

20 (1) a detailed description of the planned agency21 action;

(2) the reasons and justifications for such action;
(3) an analysis of the cost impact of such action;

24 (4) an analysis of the impact of the action on the
25 scientific benefits of the program and the effect of the

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1	action on the expected applications of the satellite
2	data from the System in such areas as global climate
3	research, land-use planning, state and local govern-
4	ment management, mineral exploration, agriculture,
5	forestry, national security, and any other areas that
6	the Administrator deems appropriate;
7	(5) an analysis of the impact of the action on the
8	United States Global Climate Change Research pro-
9	gram and international global climate change re-
10	search activities; and
11	(6) an explanation of what measures, if any, are
12	planned by NASA to compensate for any likely reduc-
13	tions in the scientific value and data collection, proc-
14	essing, and distribution capabilities of the System as
15	a result of the action.
16	TITLE III—COMMERCIAL SPACE LAUNCH ACT
17	AMENDMENTS
18	SEC. 301. AMENDMENT OF TITLE 49.
19	Except as otherwise expressly provided, whenever in
20	this title an amendment or repeal is expressed in terms of
21	an amendment to, or repeal of, a section or other provision,
22	the reference shall be considered to be made to a section or
23	other provision of title 49, United States Code.

#### 1 SEC. 302. AMENDMENT OF SECTION 70101.

2 Section 70101 (relating to findings and purposes) is
3 amended—

4 (1) by inserting "microgravity research," after
5 "information services," in subsection (a)(3);

6 (2) by inserting "commercial space transpor7 tation services, including in-space transportation ac8 tivities and" after "providing" in subsection (a)(4);

9 (3) by striking "commercial launch vehicles" in
10 subsection (a)(5) and inserting "commercial space
11 transportation including commercial launch vehicles,
12 in-space transportation activities, reentry vehicles,";

(4) by striking "launch" in subsection (a) (6) and
inserting "launch, in-space transportation, and reentry";

(5) by striking "launches" each place it appears
in subsection (a)(7) and inserting "launches, in-space
transportation activities, reentries" after ;

(6) by striking "sites and complementary facilities, the providing of launch" in subsection (a)(8) and
inserting "sites, in-space transportation control sites,
reentry sites, and complementary facilities, the providing of launch, in-space transportation, and reentry";

1	(7) by inserting ''in-space transportation control
2	sites, reentry sites," after "launch sites," in subsection
3	(a)(9);
4	(8) by striking ''launch vehicles'' in subsection
5	(b)(2) and inserting ''commercial space transpor-
6	tation services, including launch vehicles, in-space
7	transportation activities, reentry vehicles, '';
8	(9) by striking ''launch'' the first place it ap-
9	pears in subsection (b)(3) and inserting ''launch, in-
10	space transportation vehicle, and reentry";
11	(10) by striking ''commercial launch'' the second
12	place it appears in subsection (b)(3); and
13	(11) by inserting "in-space transportation vehi-
14	cle control facilities, and development of reentry sites"
15	
	after "facilities," in subsection (b)(4).
16	after "facilities," in subsection (b)(4). SEC. 303. AMENDMENT OF SECTION 70102.
16 17	
	SEC. 303. AMENDMENT OF SECTION 70102.
17	<b>SEC. 303. AMENDMENT OF SECTION 70102.</b> Section 70102 (relating to definitions) is amended—
17 18	SEC. 303. AMENDMENT OF SECTION 70102. Section 70102 (relating to definitions) is amended— (1) by inserting "from Earth, including a re-
17 18 19	SEC. 303. AMENDMENT OF SECTION 70102. Section 70102 (relating to definitions) is amended— (1) by inserting "from Earth, including a re- entry vehicle and its payload, if any" after "and any
17 18 19 20	SEC. 303. AMENDMENT OF SECTION 70102. Section 70102 (relating to definitions) is amended— (1) by inserting "from Earth, including a re- entry vehicle and its payload, if any" after "and any payload" in paragraph (3);
<ol> <li>17</li> <li>18</li> <li>19</li> <li>20</li> <li>21</li> </ol>	<ul> <li>SEC. 303. AMENDMENT OF SECTION 70102.</li> <li>Section 70102 (relating to definitions) is amended— <ul> <li>(1) by inserting "from Earth, including a re-</li> <li>entry vehicle and its payload, if any" after "and any</li> <li>payload" in paragraph (3);</li> <li>(2) by striking "object" the first place it appears</li> </ul> </li> </ul>
<ol> <li>17</li> <li>18</li> <li>19</li> <li>20</li> <li>21</li> <li>22</li> </ol>	<ul> <li>SEC. 303. AMENDMENT OF SECTION 70102.</li> <li>Section 70102 (relating to definitions) is amended— <ul> <li>(1) by inserting "from Earth, including a re-</li> <li>entry vehicle and its payload, if any" after "and any</li> <li>payload" in paragraph (3);</li> <li>(2) by striking "object" the first place it appears</li> <li>in paragraph (8) and inserting "object, including a</li> </ul> </li> </ul>
1	(4) by inserting after paragraph (8) the follow-
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2	ing:
3	"(9) "in-space transportation vehicle" means any
4	vehicle designed to operate in space and designed to
5	transport any payload or object substantially intact
6	from one orbit to another orbit.
7	"(10) 'in-space transportation services' means—
8	"(A) those activities involved in the direct
9	transportation or attempted transportation of a
10	payload or object from one orbit to another;
11	"(B) the procedures, actions, and activities
12	necessary for conduct of those transportation
13	services; and
14	"(C) the conduct of transportation services.
15	<i>"(11) 'in-space transportation control site'</i>
16	means a location from which an in-space transpor-
17	tation vehicle is controlled or operated (as such terms
18	may be defined in any license the Secretary issues or
19	transfers under this chapter).
20	"(12) 'reenter' and 'reentry' mean to return pur-
21	posefully, or attempt to return, a reentry vehicle and
22	payload, if any, from Earth orbit or outer space to
23	Earth.
24	''(13) 'reentry services' means—

	10
1	"(A) activities involved in the preparation
2	of a reentry vehicle and its payload, if any, for
3	reentry; and
4	"(B) the conduct of a reentry.
5	"(14) 'reentry site' means the location on Earth
6	to which a reentry vehicle is intended to return (as
7	defined in a license the Secretary issues or transfers
8	under this chapter).
9	''(15) 'reentry vehicle' means any vehicle de-
10	signed to return substantially intact from Earth orbit
11	or outer space to Earth.";
12	(5) by striking ''launch'' each place it appears in
13	paragraph (18), as redesignated and inserting
14	"launch services, in-space transportation activities, or
15	reentry".
16	SEC. 304. AMENDMENT OF SECTION 70103.
17	Section 70103(b) (relating to facilitating commercial
18	launches) is amended—
19	(1) by striking "LAUNCHES" in the caption and
20	inserting ''SPACE ACTIVITIES'';
21	(2) by striking ''commercial space launches'' in
22	paragraph (1) and inserting ''commercial space
23	transportation services"; and
24	(3) by striking ''a space launch'' in subsection
25	(b)(2) and inserting "space transportation".

1	SEC. 305. AMENDMENT OF SECTION 70104.
2	Section 70104 (relating to restrictions on launches and
3	operations) is amended—
4	(1) by striking the section caption and inserting
5	the following:
6	"Restrictions on launches, in-space transportation activities, op-
7	erations, and reentries";
8	(2) by striking ''site'' each place it appears in
9	subsection (a) and inserting ''site, an in-space trans-
10	portation operations site, reentry site, or reenter a re-
11	entry vehicle, '';
12	(3) by striking ''launch or operation'' in sub-
13	sections (a) (3) and (4) and inserting ''launch, in-
14	space transportation activity, or reentry operation'';
15	(4) by striking subsection (b) and inserting the
16	following:
17	"(b) Compliance with Payload Requirements.—
18	The holder of a license under this chapter may launch a
19	payload, operate an in-space transportation vehicle, or re-
20	enter a payload only if the payload or vehicle complies with
21	all requirements of the laws of the United States related
22	to launching a payload, operating an in-space transpor-
23	tation vehicle, or reentering a payload.'';
24	(5) by striking the caption of subsection (c) and
25	inserting the following: ''(c) PREVENTING LAUNCHES,

IN-SPACE TRANSPORTATION ACTIVITIES, OR REEN TRIES.—''; and

3 (6) by striking "launch" each place it appears in
4 subsection (c) and inserting "launch, in-space trans5 portation activity, or reentry".

6 SEC. 306. AMENDMENT OF SECTION 70105.

7 Section 70105 (relating to license applications and re8 quirements) is amended—

9 (1) by striking "site" in subsection (b)(1) and 10 inserting "site, an in-space transportation control 11 site, or a reentry site or the reentry of a reentry vehi-12 cle,"; and

(2) by striking "or operation" and inserting in
lieu thereof ", in-space transportation activity, operation, or reentry" in subsection (b) (2) (A).

16 SEC. 307. AMENDMENT OF SECTION 70106.

17 Section 70106(a) (relating to monitoring activities
18 general requirements) is amended—

(1) by striking "launch site" and inserting
"launch site, in-space transportation control site, or
reentry site";

(2) by inserting "in-space transportation vehicle,
or reentry vehicle," after "launch vehicle," and

24 (3) by striking "vehicle." and inserting "vehicle,
25 in-space transportation vehicle, or reentry vehicle.".

SEC. 308. AMENDMENT OF SECTION 70108.

1

21

2 Section 70108 (relating to prohibition, suspension, and end of launches and operation of launch sites) is 3 4 amended-5 (1) by striking the section caption and inserting 6 the following: 7 "Prohibition, suspension, and end of launches, in-space trans-8 portation activities, reentries, or operation of 9 launch sites, in-space transportation control sites, 10 or reentry sites"; 11 and 12 (2) by striking "site" in subsection (a) and inserting "site, in-space transportation control site, in-13 14 space transportation activity, or reentry site, or reentry of a reentry vehicle,"; and 15 (3) by striking "launch or operation" in sub-16 section (a) and inserting "launch, in-space transpor-17 18 tation activity, operation, or reentry". 19 SEC. 309. AMENDMENT OF SECTION 70109. 20 (a) CAPTION.—The section caption of section 70109 (relating to preemption of scheduled launches) is amended to read as follows: 22 23 "Preemption of scheduled launches, in-space transportation ac-24 tivities, or reentries". (b) AMENDMENT OF SUBSECTION (a).—Subsection (a) 25 26 is amended— •S 1048 RS

1	(1) by inserting ''or reentry'' after ''ensure that
2	a launch'';
3	(2) by striking "site" in the first sentence and
4	inserting ''site, reentry site,'';
5	(3) by inserting ''nor shall an in-space transpor-
6	tation activity or operation be preempted," after
7	"launch property," in the first sentence;
8	(4) by inserting "or reentry date commitment"
9	after ''launch date commitment'';
10	(5) by inserting ''or reentry'' after ''obtained for
11	a launch'';
12	(6) by striking ''site'' in the second sentence and
13	inserting ''site, reentry site,'';
14	(7) by striking ''services'' in the second sentence
15	and inserting ''services, or services related to a re-
16	entry, ";
17	(8) by inserting ''or reentry'' after ''the scheduled
18	launch"; and
19	(9) by adding at the end thereof the following:
20	"A licensee or transferee preempted from access to a
21	reentry site does not have to pay the Government
22	agency responsible for the preemption any amount for
23	reentry services attributable only to the scheduled re-
24	entry prevented by the preemption.".

(c) AMENDMENT OF SUBSECTION (c).—Subsection (c)
 is amended by inserting "or reentry" after "prompt launch ing" in subsection (c).

4 SEC. 310. AMENDMENT OF SECTION 70110.

5 Section 70110 (relating to administrative hearings
6 and judicial review) is amended—

7 (1) by striking "launch" in subsection (a)(2) and
8 inserting "launch, in-space transportation activity, or
9 reentry"; and

10 (2) by striking "site" in subsection (a) (3) (B)
11 and inserting "site, in-space transportation control
12 site, in-space transportation activity, reentry site, or
13 reentry of a reentry vehicle,".

14 SEC. 311. AMENDMENT OF SECTION 70111.

15 Section 70111 (relating to acquiring United States
16 Government property and services) is amended—

17 (1) by inserting "in-space transportation activi18 ties, or reentry services" after "launch services," in
19 subsection (a)(1)(B);

20 (2) by striking "services" in subsection (a)(2)
21 and inserting "services, in-space transportation ac22 tivities, or reentry services";

23 (3) by inserting "or reentry" after "launch" in
24 subsection (a)(2)(A);

	10
1	(4) by inserting ''or reentry'' after ''launch'' the
2	first place it appears in subsection (a)(2)(B);
3	(5) by striking ''launch'' each place it appears in
4	subsection (b)(1) and inserting ''launch, in-space
5	transportation activity, or reentry";
6	(6) by striking ''services'' the first place it ap-
7	pears in subsection (b)(2)(C) and inserting ''services,
8	in-space transportation activities or services, or re-
9	entry services"; and
10	(7) by striking subsection (d) and inserting the
11	following:
12	"(d) Collection by Other Governmental
13	HEADS.—The head of a department, agency, or instrumen-
14	tality of the Government may collect a payment for any
15	activity involved in producing a launch vehicle, in-space
16	transportation vehicle, or reentry vehicle or its payload for
17	launch, in-space transportation activity, or reentry if the
18	activity was agreed to by the owner or manufacturer of the
19	launch vehicle, in-space transportation vehicle, reentry ve-
20	hicle, or payload.''.
21	SEC. 312. AMENDMENT OF SECTION 70112.
22	Section 70112 (relating to liability insurance and fi-

22 Section 70112 (relating to liability insurance and fi23 nancial responsibility requirements) is amended—

1	(1) by inserting "one reentry, or to the oper-
2	ations of each in-space transportation vehicle" after
3	"launch," in subsection (a)(3);
4	(2) by inserting ''in-space transportation activi-
5	ties, or reentry services," after "launch services," each
6	place it appears in subsections (a)(4) and (b)(2);
7	(3) by striking ''services'' in subsection (b)(1)
8	and the third place it appears in subsection (b)(2)
9	and inserting ''services, in-space transportation ac-
10	tivities, or reentry services, '';
11	(4) by inserting ''applicable'' after ''carried out
12	under the" in subsections (b)(1) and (2);
13	(5) by striking ''Science, Space, and Technology''
14	in subsection (d) and inserting "Science";
15	(6) by striking ''LAUNCHES'' in the caption of
16	subsection (e) and inserting ''LAUNCHES, IN-SPACE
17	Transportation Activities, or Reentries''; and
18	(7) by striking ''site'' in subsection (e) and in-
19	serting ''site, in-space transportation control site, or
20	control of an in-space transportation vehicle or activ-
21	ity, or reentry site or a reentry".
22	SEC. 313. AMENDMENT OF SECTION 70113.
23	Section 70113 (relating to paying claims exceeding li-
24	ability insurance and financial responsibility require-
25	ments) is amended by striking ''launch'' each place it ap-

1	pears in subsections (a)(1), (d)(1), and (d)(2) and inserting
2	"launch, operation of one in-space transportation vehicle,
3	or one reentry".
4	SEC. 314. AMENDMENT OF SECTION 70115.
5	Section 70115(b)(1)(D)(i) (relating to enforcement and
6	penalty general authority) is amended—
7	(1) by inserting ''in-space transportation control
8	site, or reentry site, '' after ''launch site, '';
9	(2) by inserting "in-space transportation vehicle,
10	or reentry vehicle'' after ''launch vehicle, ''; and
11	(3) by striking ''vehicle'' the second place it ap-
12	pears and inserting ''vehicle, in-space transportation
13	vehicle, or reentry vehicle''.
14	SEC. 315. AMENDMENT OF SECTION 70117.
15	Section 70117 (relating to relationship to other execu-
16	
	tive agencies, laws, and international obligations) is
17	tive agencies, laws, and international obligations) is amended—
17 18	
	amended—
18	amended— (1) by striking ''vehicle or operate a launch site.''
18 19	amended— (1) by striking "vehicle or operate a launch site." in subsection (a) and inserting "vehicle, operate a
18 19 20	amended— (1) by striking "vehicle or operate a launch site." in subsection (a) and inserting "vehicle, operate a launch site, perform in-space transportation activities
18 19 20 21	amended— (1) by striking "vehicle or operate a launch site." in subsection (a) and inserting "vehicle, operate a launch site, perform in-space transportation activities or operate an in-space transportation control site or
<ol> <li>18</li> <li>19</li> <li>20</li> <li>21</li> <li>22</li> </ol>	amended— (1) by striking "vehicle or operate a launch site." in subsection (a) and inserting "vehicle, operate a launch site, perform in-space transportation activities or operate an in-space transportation control site or reentry site, or reenter a reentry vehicle.";

*activity, or reentry";* 

(3) by striking subsections (f) and (g), and in serting the following:

3 "(f) LAUNCH NOT AN EXPORT OR IMPORT.—A launch
4 vehicle, reentry vehicle, or payload that is launched or reen5 tered is not, because of the launch or reentry, an export
6 or import for purposes of a law controlling exports or im7 ports.

8 "(g) NONAPPLICATION.—This chapter does not apply
9 to—

"(1) a launch, in-space transportation activity,
reentry, operation of a launch vehicle, in-space transportation vehicle, or reentry vehicle, or of a launch
site, in-space transportation control site, or reentry
site, or other space activity the Government carries
out for the Government; or

16 *"(2) planning or policies related to the launch,*17 *in-space transportation activity, reentry, or oper-*18 *ation.".*

## 19 SEC. 316. REPORT TO CONGRESS.

20 Chapter 701 is amended by adding at the end thereof21 the following new section:

## 22 "§ 70120. Report to Congress

23 "The Secretary of Transportation shall submit to Con24 gress an annual report to accompany the President's budget
25 request that—

1	"(1) describes all activities undertaken under
2	this chapter, including a description of the process for
3	the application for and approval of licenses under
4	this chapter and recommendations for legislation that
5	may further commercial launches and reentries; and
6	"(2) reviews the performance of the regulatory
7	activities and the effectiveness of the Office of Com-
8	mercial Space Transportation.".
9	SEC. 317. AMENDMENT OF TABLE OF SECTIONS.
10	The table of sections for chapter 701 of title 49, United
11	States Code, is amended—
12	(1) by amending the item relating to section
13	70104 to read as follows:
	70104. Restrictions on launches, in-space transportation activities, operations, and reentries'';
14	(2) by amending the item relating to section
15	70108 to read as follows:
ć.	70108. Prohibition, suspension, and end of launches, in-space transportation ac- tivities, reentries, or operation of launch sites, in-space transpor- tation control sites, or reentry sites'';
16	(3) by amending the item relating to section
17	70109 to read as follows:
	70109. Preemption of scheduled launches, in-space transportation activities, or reentries'';
18	and
19	(4) by adding at the end the following new item:
	70120. Report to Congress''.

1 SEC. 318. REGULATIONS.

2 The Secretary of Transportation shall issue regula3 tions under chapter 701 of title 49, United States Code, that
4 include—

5 (1) guidelines for industry to obtain sufficient
6 insurance coverage for potential damages to third
7 parties;

8 (2) procedures for requesting and obtaining li9 censes to operate a commercial launch vehicle and re10 entry vehicle;

(3) procedures for requesting and obtaining operator licenses for launch and reentry; and

13 (4) procedures for the application of government14 indemnification.

## 15 SEC. 319. SPACE ADVERTISING.

(a) DEFINITION.—Section 70102, as amended by sec-16 17 tion 303, is amended by redesignating paragraphs (12) through (19) as (13) through (20), respectively, and by in-18 19 serting after paragraph (11) the following new paragraph: 20 "(12) 'obtrusive space advertising' means adver-21 tising in outer space that is capable of being recog-22 nized by a human being on the surface of the earth 23 without the aid of a telescope or other technological 24 device:".

(b) PROHIBITION.—Chapter 701 is amended by inserting after section 70109 the following new section:

1 "§ 70109a. Space advertising

2 "(a) LICENSING.—Notwithstanding the provisions of
3 this chapter or any other provision of law, the Secretary
4 shall not—

5 "(1) issue or transfer a license under this chap6 ter; or

7 *"(2) waive the license requirements of this chap-*8 *ter;*

9 for the launch of a payload containing any material to be10 used for the purposes of obtrusive space advertising.

"(b) LAUNCHING.—No holder of a license under this 11 chapter may launch a payload containing any material to 12 be used for purposes of obtrusive space advertising on or 13 after the date of enactment of the National Aeronautics and 14 15 Space Administration Authorization Act, Fiscal Year 1996. "(c) Commercial Space Advertising.—Nothing in 16 this section shall apply to nonobtrusive commercial space 17 advertising, including advertising on commercial space 18 transportation vehicles, space infrastructure, payloads, 19 space launch facilities, and launch support facilities.". 20

21 (c) Negotiation With Foreign Launching Na22 tions.—

(1) The President is requested to negotiate with
foreign launching nations for the purpose of reaching
an agreement or agreements that prohibit the use of
outer space for obtrusive space advertising purposes.
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1	(2) It is the sense of Congress that the President
2	should take such action as is appropriate and feasible
3	to enforce the terms of any agreement to prohibit the
4	use of outer space for obtrusive space advertising pur-
5	poses.
6	(3) As used in this subsection, the term ''foreign
7	launching nation" means a nation—
8	(A) which launches, or procures the launch-
9	ing of, a payload into outer space; or
10	(B) from whose territory or facility a pay-
11	load is launched into outer space.
12	(d) Clerical Amendment.—The table of sections for
13	chapter 701 is amended by inserting the following after the
14	item relating to section 70109:
	''70109a. Space advertising''.

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- S 1048 RS—2
- S 1048 RS----3
- S 1048 RS——4
- S 1048 RS-5
- S 1048 RS-6
- S 1048 RS—7