

103^D CONGRESS
2^D SESSION

H. R. 4489

AMENDMENTS

In the Senate of the United States,

October 5 (legislative day, September 12), 1994.

Resolved, That the bill from the House of Representatives (H.R. 4489) entitled “An Act to authorize appropriations to the National Aeronautics and Space Administration for human space flight, science, aeronautics, and technology, mission support, and Inspector General, and for other purposes”, do pass with the following

AMENDMENTS:

Strike out all after the enacting clause and insert:

1 ***SECTION 1. SHORT TITLE.***

2 *This Act may be cited as the “Aeronautics and Space*
3 *Policy Act of 1994”.*

4 ***SEC. 2. FINDINGS.***

5 *The Congress finds that—*

6 *(1) the National Aeronautics and Space Admin-*
7 *istration will require a stable budget, adjusted for in-*
8 *flation, in order to carry out the initiatives now*
9 *planned in human space flight and science, aero-*
10 *navitics, and technology;*

11 *(2) cooperation in space should continue to be a*
12 *major element of the post-cold war foreign policy*
13 *agenda through a broad range of scientific and engi-*
14 *neering programs that have the potential to stabilize*

1 *the scientific and industrial base of the former Soviet*
2 *Union and encourage the transition toward political*
3 *reform and a market-based economy;*

4 *(3) the National Aeronautics and Space Admin-*
5 *istration should aggressively pursue actions and re-*
6 *forms directed at reducing institutional costs, includ-*
7 *ing management restructuring, facility consolidation,*
8 *procurement reform, personnel base downsizing, and*
9 *convergence with other defense and private sector sys-*
10 *tems.*

11 *(4) in formulating a national space transpor-*
12 *tation policy, the National Aeronautics and Space*
13 *Administration should take the lead role in develop-*
14 *ing advanced space transportation technologies in-*
15 *cluding reusable space vehicles, single-stage-to-orbit*
16 *vehicles, and manned space systems; and*

17 *(5) maintaining experimental state-of-the-art fa-*
18 *cilities has been a key investment to retaining United*
19 *States competitiveness and technological leadership,*
20 *and these facilities have been heavily utilized by*
21 *United States industry in their research and develop-*
22 *ment programs.*

23 **SEC. 3. DEFINITIONS.**

24 *For purposes of this Act—*

1 (1) the term “Administrator” means the Admin-
 2 istrator of the National Aeronautics and Space Ad-
 3 ministration; and

4 (2) the term “institution of higher education”
 5 has the meaning given such term in section 1201(a)
 6 of the Higher Education Act of 1965 (20 U.S.C.
 7 1141(a)).

8 **TITLE I—NATIONAL AERO-**
 9 **NAUTICS AND SPACE ADMIN-**
 10 **ISTRATION**

11 SUBTITLE A—SPECIAL AUTHORITY AND
 12 LIMITATIONS

13 **SEC. 101. OPERATING PLAN.**

14 Not later than 60 days after the date of enactment of
 15 an Act making appropriations to the National Aeronautics
 16 and Space Administration for fiscal year 1995 or the date
 17 of enactment of this Act, the Administrator shall submit
 18 to the Committee on Science, Space, and Technology of the
 19 House of Representatives and the Committee on Commerce,
 20 Science, and Transportation of the Senate an operating
 21 plan that provides a detailed plan for obligating fiscal year
 22 1995 funds.

23 **SEC. 102. USE OF FUNDS FOR CONSTRUCTION.**

24 (a) **AUTHORIZED USES.**—The Administrator may use
 25 funds appropriated for purposes other than—

1 (1) construction of facilities;
2 (2) research and program management, exclud-
3 ing research operations support; and
4 (3) Inspector General,
5 for the construction of new facilities and additions to, re-
6 pair of, rehabilitation of, or modification of existing facili-
7 ties at any location in support of the purposes for which
8 such funds are appropriated.

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

19 (c) *TITLE TO FACILITIES.*—If funds are used pursuant
20 to subsection (a) for grants to institutions of higher edu-
21 cation, or to nonprofit organizations whose primary pur-
22 pose is the conduct of scientific research, for purchase or
23 construction of additional research facilities, title to such
24 facilities shall be vested in the United States unless the Ad-
25 ministrator determines that the national program of aero-

1 *nautical and space activities will best be served by vesting*
2 *title in the grantee institution or organization. Each such*
3 *grant shall be made under such conditions as the Adminis-*
4 *trator shall determine to be required to ensure that the*
5 *United States will receive therefrom benefits adequate to*
6 *justify the making of that grant.*

7 **SEC. 103. AVAILABILITY OF APPROPRIATED AMOUNTS**

8 *To the extent provided in appropriations Acts, appro-*
9 *priations may remain available without fiscal year limita-*
10 *tion.*

11 **SEC. 104. REPROGRAMMING FOR CONSTRUCTION OF FA-**
12 **CILITIES.**

13 *(a) IN GENERAL.—Amounts appropriated for a con-*
14 *struction of facilities project—*

15 *(1) may be varied upward by 10 percent in the*
16 *discretion of the Administrator; or*

17 *(2) may be varied upward by 25 percent, to meet*
18 *unusual cost variations, after the expiration of 15*
19 *days following a report on the circumstances of such*
20 *action by the Administrator to the Committee on*
21 *Science, Space, and Technology of the House of Rep-*
22 *resentatives and the Committee on Commerce,*
23 *Science, and Transportation of the Senate.*

24 *(b) SPECIAL RULE.—Where the Administrator deter-*
25 *mines that new developments in the national program of*

1 *aeronautical and space activities have occurred; and that*
2 *such developments require the use of additional funds for*
3 *the purposes of construction, expansion, or modification of*
4 *facilities at any location; and that deferral of such action*
5 *until the enactment of the next National Aeronautics and*
6 *Space Administration Authorization Act would be incon-*
7 *sistent with the interest of the Nation in aeronautical and*
8 *space activities, the Administrator may use for such pur-*
9 *poses up to \$10,000,000 of the amounts appropriated for*
10 *construction of facilities purposes. No such funds may be*
11 *obligated until a period of 30 days has passed after the Ad-*
12 *ministrator has transmitted to the Committee on Com-*
13 *merce, Science, and Transportation of the Senate and the*
14 *Committee on Science, Space, and Technology of the House*
15 *of Representatives a written report describing the nature*
16 *of the construction, its costs, and the reasons therefor.*

17 **SEC. 105. CONSIDERATION BY COMMITTEES.**

18 *Notwithstanding any other provision of this Act—*

19 *(1) no amount appropriated to the National Aer-*
20 *onautics and Space Administration may be used for*
21 *any program for which the President's annual budget*
22 *request included a request for funding, but for which*
23 *the Congress denied or did not provide funding; and*

24 *(2) no amount appropriated to the National Aer-*
25 *onautics and Space Administration may be used for*

1 any program which has not been presented to the
2 Congress in the President's annual budget request or
3 the supporting and ancillary documents thereto,
4 unless a period of 30 days has passed after the receipt by
5 the Committee on Science, Space, and Technology of the
6 House of Representatives and the Committee on Commerce,
7 Science, and Transportation of the Senate of notice given
8 by the Administrator containing a full and complete state-
9 ment of the action proposed to be taken and the facts and
10 circumstances relied upon in support of such proposed ac-
11 tion. The National Aeronautics and Space Administration
12 shall keep the Committee on Science, Space, and Technology
13 of the House of Representatives and the Committee on Com-
14 merce, Science, and Transportation of the Senate fully and
15 currently informed with respect to all activities and respon-
16 sibilities within the jurisdiction of those committees. Except
17 as otherwise provided by law, any Federal department,
18 agency, or independent establishment shall furnish any in-
19 formation requested by either committee relating to any
20 such activity or responsibility.

21 **SEC. 106. USE OF FUNDS FOR SCIENTIFIC CONSULTATIONS**
22 **OR EXTRAORDINARY EXPENSES.**

23 Funds appropriated for Mission Support may be used,
24 but not to exceed \$35,000, for scientific consultations or ex-

1 *traordinary expenses upon the authority of the Adminis-*
2 *trator.*

3 **SEC. 107. LAND CONVEYANCE.**

4 *(a) The Administrator may accept the conveyance to*
5 *the United States of certain parcels of land from the cities*
6 *of Cleveland and Brook Park, Ohio, for the purpose of estab-*
7 *lishing a Visitor Center for the Lewis Research Center.*

8 *(b) If cost-effective, the Administrator may acquire a*
9 *certain parcel of land, together with existing facilities, lo-*
10 *cated at the site of the Clear Lake Development Facility,*
11 *Clear Lake, Texas. The land and facilities in question com-*
12 *prise approximately 13 acres and include a Light Manufac-*
13 *turing Facilities, an Avionics Development Facility, and*
14 *an Assembly and Test Building which may be modified for*
15 *use as a Neutral Buoyancy Laboratory in support of*
16 *human space flight activities.*

17 **SEC. 108. GEOGRAPHICAL DISTRIBUTION.**

18 *The National Aeronautics and Space Administration*
19 *shall give consideration to geographical distribution of its*
20 *research and development funds whenever feasible.*

21 **SEC. 109. ADDITIONAL NATIONAL AERONAUTICS AND**
22 **SPACE ADMINISTRATION FACILITIES.**

23 *The Administrator shall not construct or enter into a*
24 *new lease for facilities to support National Aeronautics and*
25 *Space Administration programs unless the Administrator*

1 *has certified to the Congress that the Administrator has re-*
2 *viewed existing National Aeronautics and Space Adminis-*
3 *tration and other federally owned facilities, including mili-*
4 *tary facilities scheduled for closing or reduction, and found*
5 *no such facilities appropriate for the intended use.*

6 **SEC. 110. SENSE OF CONGRESS; ADDITIONAL NATIONAL**
7 **AERONAUTICS AND SPACE ADMINISTRATION**
8 **FACILITIES.**

9 *It is the sense of Congress that, when consistent with*
10 *the goals of the National Aeronautics and Space Adminis-*
11 *tration, the Administrator should select sites in depressed*
12 *communities for new programs or functions of the National*
13 *Aeronautics and Space Administration, unless those new*
14 *programs or functions are so closely related to programs*
15 *or functions carried out at an existing facility as to require*
16 *being carried out at that existing facility.*

17 **SEC. 111. PROCUREMENT.**

18 *(a) PROCUREMENT DEMONSTRATION.—*

19 *(1) IN GENERAL.—The Administrator shall es-*
20 *tablish within the Office of Space Access and Tech-*
21 *nology a program of expedited technology procure-*
22 *ment for the purpose of demonstrating how innovative*
23 *technology concepts can rapidly be brought to bear*
24 *upon space missions of the National Aeronautics and*
25 *Space Administration.*

1 (2) *PROCEDURES AND EVALUATION.*—The Ad-
2 ministrators shall ensure that proper procedures will
3 be developed for actively seeking, from nongovernment
4 persons, innovative technology concepts relating to the
5 provision of space hardware, technology, or services to
6 the National Aeronautics and Space Administration.
7 Expedited technology procurement procedures shall
8 include, but not be limited to Space Act Agreements,
9 Cooperative Agreements with both profit and not-for-
10 profit organizations, and other consortium and
11 partnering programs that will ensure proactive com-
12 mercial applications development and technology in-
13 fusion for both NASA and industry.

14 To carry out this subsection, the Administrator shall ensure
15 use in the evaluation process of persons with special exper-
16 tise and experience related to the innovative technology con-
17 cepts with respect to which procurements are made under
18 this subsection. Use of nongovernmental sector expertise will
19 be used to the maximum extent practicable through the use
20 of existing special appointment procedures.

21 (3) *SUNSET.*—This subsection shall cease to be
22 effective 10 years after the date of enactment of the
23 Aeronautics and Space Policy Act of 1994.

24 (b) *TECHNOLOGY PROCUREMENT INITIATIVE.*—

1 (1) *IN GENERAL.*—*The Administrator shall co-*
2 *ordinate National Aeronautics and Space Adminis-*
3 *tration resources in the areas of procurement, com-*
4 *mercial programs, and advanced technology in order*
5 *to—*

6 (A) *fairly assess and procure commercially*
7 *available technology from the marketplace in the*
8 *most efficient manner practicable;*

9 (B) *achieve a continuous pattern of inte-*
10 *grating advanced technology from the commer-*
11 *cial sector into the missions and programs of the*
12 *National Aeronautics and Space Administration;*

13 (C) *utilize streamlined buying and bidding*
14 *procedures to the maximum extent practicable,*
15 *and survey private sector buying and bidding*
16 *procedures to determine the extent to which they*
17 *may be incorporated into procedures of the Na-*
18 *tional Aeronautics and Space Administration;*

19 (D) *consider the use of fixed price contracts*
20 *at both contract and subcontract levels to inte-*
21 *grate commercially available technology into sys-*
22 *tems and subsystems of the National Aeronautics*
23 *and Space Administration; and*

24 (E) *provide an annual report to the Con-*
25 *gress as to progress achieved in implementing the*

1 *technology procurement initiative set forth under*
2 *this subsection.*

3 (2) *REQUIREMENTS.—The Administration shall*
4 *ensure that requirements developed for space hard-*
5 *ware, innovative technology or related space services*
6 *under this demonstration program shall, to the maxi-*
7 *mum extent practicable, enhance the integration of*
8 *existing commercial, non-developmental or available*
9 *off-the-shelf hardware or services into meeting the*
10 *Agency's mission. Requirements shall seek to utilize*
11 *non-Governmental research and development activi-*
12 *ties, and those cooperative research efforts between*
13 *Government and non-Government sources to bring po-*
14 *tentially innovative technology concepts into the*
15 *Agency's mainstream missions.*

16 **SEC. 112. COORDINATION OF EDUCATION SUPPORT FOR**
17 **UNDERREPRESENTED GROUPS.**

18 *The Administrator shall coordinate with other Federal*
19 *agencies all National Aeronautics and Space Administra-*
20 *tion education activities to encourage the participation of*
21 *women, minorities who are underrepresented in science, en-*
22 *gineering, and mathematics, and persons with disabilities.*

1 **SEC. 113. REQUIREMENT FOR INDEPENDENT COST ANALY-**
2 **SIS.**

3 *The Chief Financial Officer for the National Aero-*
4 *nautics and Space Administration shall be responsible for*
5 *conducting independent cost analyses of all new projects es-*
6 *timated to cost more than \$100,000,000 and shall report*
7 *the results annually to Congress at the time of the submis-*
8 *sion of the President's budget request. In developing cost*
9 *accounting and reporting standards for carrying out this*
10 *section, the Chief Financial Officer shall, to the extent prac-*
11 *ticable and consistent with other laws, solicit the advice of*
12 *expertise outside of the National Aeronautics and Space Ad-*
13 *ministration.*

14 **SEC. 114. SMALL SPACECRAFT TECHNOLOGY INITIATIVE.**

15 *The Administrator may not obligate funds for the*
16 *Small Spacecraft Technology Initiative to duplicate private*
17 *sector activities or to fund any activities that a private sec-*
18 *tor entity is proposing to carry out for commercial pur-*
19 *poses.*

20 **SEC. 115. SCIENTIFIC COOPERATION WITH RUSSIA.**

21 *(a) SENSE OF CONGRESS.—It is the sense of Congress*
22 *that the National Aeronautics and Space Administration*
23 *should seek, to the maximum extent practicable, to under-*
24 *take joint scientific activities with Russia with an initial*
25 *focus on the robotic exploration of Mars. Such joint sci-*

1 *entific activities may include other spacefaring nations, as*
2 *appropriate.*

3 (b) *MARS TRANSITION PLAN.—The Administrator*
4 *shall provide to the Congress by February 15, 1995, a de-*
5 *tailed plan to integrate the Mars Surveyor program with*
6 *a Mars exploration program with Russia and other*
7 *spacefaring nations, as appropriate.*

8 **SEC. 116. VISITORS CENTER.**

9 *To the extent provided in advance in appropriations*
10 *Acts, all unobligated funds available to the Administrator*
11 *from appropriations for fiscal years before fiscal year 1995,*
12 *but not to exceed \$5,000,000, may be obligated for the estab-*
13 *lishment of a Visitor Center for the Lewis Research Center,*
14 *if at least an equal amount of funding of in-kind resources*
15 *of equivalent value or a combination thereof are provided*
16 *for such purpose from non-Federal sources.*

17 **SEC. 117. CONSORTIUM FOR INTERNATIONAL EARTH**
18 **SCIENCE INFORMATION NETWORK BUILDING.**

19 *The Consortium for International Earth Science Infor-*
20 *mation Network may not obligate more than \$27,000,000*
21 *for the construction of a new building. Such funds may not*
22 *be obligated until 90 days after the completion of a building*
23 *prospectus by the General Services Administration, which*
24 *shall be completed within 60 days after the date of enact-*
25 *ment of this Act.*

1 **SEC. 118. GLOBAL CHANGE DATA AND INFORMATION SYS-**
2 **TEM.**

3 *Title I of the Global Change Research Act of 1990 (15*
4 *U.S.C. 2931 et seq.) is amended by adding at the end the*
5 *following new section:*

6 **“SEC. 109. GLOBAL CHANGE DATA AND INFORMATION SYS-**
7 **TEM.**

8 *“(a) IN GENERAL.—The National Aeronautics and*
9 *Space Administration, in coordination with other agencies*
10 *that belong to the Committee established under section 102,*
11 *shall establish the requirements and architecture for, design,*
12 *and develop a Global Change Data and Information System*
13 *that shall serve as the system to process, archive, and dis-*
14 *tribute data generated by the Global Change Research Pro-*
15 *gram. The Office of Science and Technology policy shall co-*
16 *ordinate the activities of the National Aeronautics and*
17 *Space and Administration and such other agencies under*
18 *this section.*

19 *“(b) SPECIFICATIONS.—The Office of Science and*
20 *Technology Policy shall ensure that the Global Change Data*
21 *and Information Systems is designed—*

22 *“(1) so that Federal agencies may connect data*
23 *centers operated by such agencies to such System;*

24 *“(2) so as to minimize, to the extent practicable,*
25 *the cost of connecting such data centers; and*

1 “(3) so as to avoid duplication with existing
2 *Federally-funded efforts and to promote products that*
3 *are useful to the Global Change Data and Informa-*
4 *tion System.*

5 “(c) *OPERATING RESPONSIBILITY.—Each agency in-*
6 *involved in the Global Change Research Program shall retain*
7 *the responsibility to establish and operate Global Change*
8 *Data and Information System data centers to process, ar-*
9 *chive, and distribute data generated by such agency’s pro-*
10 *grams. Agencies may agree to assume the responsibility for*
11 *processing, archiving, or distributing data generated by*
12 *other agencies.*

13 “(d) *PLAN.—The Office of Science and Technology Pol-*
14 *icy shall prepare a plan that will ensure the interoper-*
15 *ability among the data systems of the agencies of the United*
16 *States Global Change Research Program, develop standards*
17 *among the agencies to promote the exchange of data by re-*
18 *searchers, and maintain high levels of data service among*
19 *the agencies. The Office shall submit the plan to the Con-*
20 *gress within one year after the date of enactment of the Aer-*
21 *onautics and Space Policy Act of 1994.”.*

22 **SEC. 119. ACCESS TO DATA FOR GLOBAL CHANGE RE-**
23 **SEARCH.**

24 *The National Science and Technology Council, through*
25 *its Committee on Environment and Natural Resources,*

1 *shall develop and submit to the Congress within one year*
2 *after the date of enactment of this Act a plan for providing*
3 *access to declassified data from classified archives and sys-*
4 *tems for global change research. The plan shall—*

5 *(1) determine whether the Global Change Data*
6 *and Information System or other means should be*
7 *used to provide multiple source access to such data for*
8 *the scientific community; and*

9 *(2) identify what agencies or nonprofit institu-*
10 *tions or consortia should be responsible for particular*
11 *parts of such data and any data centers needed to*
12 *process, archive, and distribute such data.*

13 **SEC. 120. UNIVERSITY INNOVATIVE RESEARCH PROGRAM**
14 **STUDY.**

15 *(a) STUDY.—The Administrator shall undertake a*
16 *study of the feasibility and potential implementation of a*
17 *University Innovative Research Program which—*

18 *(1) promotes technological innovation in the*
19 *United States by using the Nation's institutions of*
20 *higher education to help meet the National Aero-*
21 *nautics and Space Administration's research and de-*
22 *velopment needs, by stimulating technology transfer*
23 *between institutions of higher education and industry,*
24 *and by encouraging participation by minority and*

1 *disadvantaged persons in technological innovation;*
2 *and*

3 *(2) avoids duplication of existing National Aero-*
4 *navics and Space Administration programs with the*
5 *institutions of higher education.*

6 *(b) COMPLETION.—The study required by subsection*
7 *(a) shall be completed and its results submitted to the Con-*
8 *gress within one year after the date of enactment of this*
9 *Act.*

10 *(c) ADVICE.—In carrying out the study required by*
11 *subsection (a), the Administrator shall seek the advice of*
12 *the National Aeronautics and Space Administration Advi-*
13 *sory Council, the National Research Council's Aeronautics*
14 *and Space Engineering Board and Space Studies Board,*
15 *and other organizations as appropriate.*

16 **SEC. 121. STUDY ON TDRSS AND COMMERCIAL SATELLITE**
17 **SYSTEM CONVERGENCE.**

18 *(a) REQUIREMENT.—The Administrator shall conduct*
19 *a study on the convergence of the National Aeronautics and*
20 *Space Administration Tracking and Data Relay Satellite*
21 *System (TDRSS) with commercial communications sat-*
22 *ellite systems. The study shall assess whether a converged*
23 *system, from which the National Aeronautics and Space*
24 *Administration would buy tracking and data relay services,*
25 *could—*

1 (1) *satisfy the National Aeronautics and Space*
2 *Administration's tracking and data relay require-*
3 *ments;*

4 (2) *reduce the National Aeronautics and Space*
5 *Administration's expenses in satisfying tracking and*
6 *data relay requirements through maintenance and op-*
7 *erations of the TDRSS;*

8 (3) *be financed, developed, and operated by the*
9 *private sector;*

10 (4) *serve commercial communication needs;*

11 (5) *be established to satisfy the National Aero-*
12 *navitics and Space Administration's requirements in*
13 *time to obviate the need to procure TDRSS spacecraft*
14 *beyond the tenth flight; and*

15 (6) *encourage the growth of the commercial sat-*
16 *ellite communications market.*

17 (b) *CONSULTATION.*—*In conducting the study, the Ad-*
18 *ministrator shall consult with commercial satellite opera-*
19 *tors, including the International Telecommunications Sat-*
20 *ellite Organization, other international satellite operators,*
21 *and United States satellite operators, as appropriate, and*
22 *shall also consult with the Department of Defense concern-*
23 *ing its requirements for tracking and data relay services.*

24 (c) *REPORT.*—*The Administrator shall report on the*
25 *study's findings and recommendations on feasibility of con-*

1 *vergence to the Committee on Science, Space, and Tech-*
2 *nology of the House of Representatives and the Committee*
3 *on Commerce, Science, and Transportation of the Senate*
4 *by February 15, 1995.*

5 **SEC. 122. SPACE SHUTTLE COST REDUCTION INITIATIVES.**

6 *By February 1, 1995, the Administrator shall submit*
7 *a report to the Committee on Science, Space, and Tech-*
8 *nology of the House of Representatives and the Committee*
9 *on Commerce, Science, and Transportation of the Senate*
10 *that—*

11 *(1) specifies the minimum number of Space*
12 *Shuttle flights that would be required each fiscal year*
13 *from 1995 through 2004 to implement payload and*
14 *related activities provided for in the President's fiscal*
15 *year 1995 budget request and supporting and ancil-*
16 *lary documents thereto;*

17 *(2) outlines the Space Shuttle flight and payload*
18 *manifest that could be implemented for each of the fis-*
19 *cal years 1995 through 1999 if the Space Shuttle*
20 *flight rate for each of those years were 8 missions, if*
21 *the flight rate were 7 missions, and if the flight rate*
22 *were 6 missions;*

23 *(3) evaluates the extent to which various poten-*
24 *tial management consolidation initiatives could re-*

1 *duce the annual cost of the Space Shuttle program*
2 *while preserving quality and safety; and*

3 *(4) evaluates the extent to which various poten-*
4 *tial contract incentives could be used to reduce the*
5 *annual cost of the Space Shuttle program while pre-*
6 *serving quality and safety.*

7 **SEC. 123. ADVANCED LAUNCH TECHNOLOGY REPORT.**

8 *By February 1, 1995, the Administrator shall submit*
9 *to the Congress a program plan for an advanced launch*
10 *technology program that—*

11 *(1) clearly articulates the goals and objectives of*
12 *the program and the flight hardware it will produce;*

13 *(2) describes the management structure and de-*
14 *velopment philosophy that will be used to implement*
15 *the program;*

16 *(3) outlines key milestones toward the achieve-*
17 *ment of the goals and objectives articulated under*
18 *paragraph (1);*

19 *(4) estimates the total cost that will have been*
20 *incurred upon completion of the program;*

21 *(5) defines the annual budgetary requirements of*
22 *the program for the next 5 years; and*

23 *(6) identifies the source or sources of funding an-*
24 *ticipated for the program for each of the next 5 years.*

1 **SEC. 124. SENSE OF CONGRESS; WOMEN'S HEALTH ISSUES.**

2 *It is the sense of Congress that the National Aero-*
3 *navitics and Space Administration should pursue, to the ex-*
4 *tent practicable, life and microgravity sciences research re-*
5 *lated to the causes of breast and ovarian cancers, bone-relat-*
6 *ed diseases, and other women's health issues.*

7 **SEC. 125. SPACE STATION ACCOUNTING REPORT.**

8 (a) *ANNUAL REPORT TO THE CONGRESS.*—The Ad-
9 *ministrators of the National Aeronautics and Space Admin-*
10 *istration shall transmit a report to the Congress each year*
11 *containing a complete accounting of all costs of the space*
12 *station, including cash and other payments to Russia.*

13 (b) *QUARTERLY REPORTS FROM RUSSIA.*—The Ad-
14 *ministrators shall obtain quarterly reports from the Russian*
15 *Space Agency during the term of the contract between the*
16 *Russian Space Agency and the National Aeronautics and*
17 *Space Administration which fully account for the disposi-*
18 *tion of funds paid or transferred by the National Aero-*
19 *navitics and Space Administration to Russia, including—*

20 (1) *the amount of funds received from the Na-*
21 *tional Aeronautics and Space Administration and the*
22 *date of their receipt,*

23 (2) *the amount of funds converted from United*
24 *States currency by the Russian Space Agency, the*
25 *currency into which the funds have been converted,*

1 *and the dates and exchange rates of each such conver-*
2 *sion,*

3 *(3) the amount of non-United States currency,*
4 *and of United States currency, disbursed by the Rus-*
5 *sian Space Agency to any contractor or subcontract-*
6 *tor, the identity of such contractor or subcontractor,*
7 *and the date on which the funds were disbursed, and*
8 *(4) the balance of the funds provided by the Na-*
9 *tional Aeronautics and Space Administration which*
10 *have not been disbursed by the Russian Space Agency*
11 *as of the date of the report.*

12 **SEC. 126. PURCHASE OF SPACE SCIENCE DATA.**

13 *To the maximum extent practicable, the National Aer-*
14 *onautics and Space Administration shall purchase from the*
15 *private sector space science data. Examples of such data*
16 *include scientific data concerning the elemental and min-*
17 *eralogical resources of the moon and the planets, Earth en-*
18 *vironmental data obtained through remote sensing observa-*
19 *tions, and solar storm monitoring.*

20 **SEC. 127. REMOTE SENSING FOR AGRICULTURAL AND RE-**
21 **SOURCE MANAGEMENT.**

22 *(a) INFORMATION DEVELOPMENT.—The Secretary of*
23 *Agriculture and the Administrator of the National Aero-*
24 *onautics and Space Administration, maximizing private*
25 *funding and involvement, shall provide, to the extent fea-*

1 sible, farmers and other interested persons with timely in-
 2 formation, through remote sensing, on crop conditions, fer-
 3 tilization and irrigation needs, pest infiltration, soil condi-
 4 tions, projected food, feed, and fiber production, and any
 5 other information available through remote sensing.

6 (b) *ENHANCED REMOTE SENSING.*—The Secretary of
 7 Agriculture and the Administrator of the National Aero-
 8 nautics and Space Administration shall jointly evaluate the
 9 need for a radar imaging platform that could enhance Unit-
 10 ed States remote sensing capability by providing informa-
 11 tion and data relating to agricultural resources, and which
 12 may have other commercial and research applications.

13 (c) *TRAINING.*—The Secretary of Agriculture and the
 14 Administrator of the National Aeronautics and Space Ad-
 15 ministration shall jointly develop a proposal to inform
 16 farmers and other prospective users concerning the use and
 17 availability of remote sensing data.

18 (d) *SUNSET.*—The provisions of this section shall ex-
 19 pire 5 years after the date of enactment of this Act.

20 **SEC. 128. SPACE EXPLORATION OPPORTUNITIES ASSESS-**
 21 **MENT.**

22 (a) *ASSESSMENT.*—The Administrator shall conduct
 23 an assessment of methods for maximizing, based on a vari-
 24 ety of prospective funding levels, the quantity and quality
 25 of opportunities for space exploration, both human and

1 *robotic, using space vehicles and platforms available or ex-*
2 *pected to be available. Such assessment shall focus on the*
3 *5-year period after the date of enactment of this Act, and*
4 *on each of the two subsequent 5-year periods. Such assess-*
5 *ment shall address opportunities in connection with civil-*
6 *ian and military domestic, and foreign, space vehicles and*
7 *platforms, whether publicly or privately funded.*

8 **(b) REPORT TO CONGRESS.**—*The Administrator shall,*
9 *within one year after the date of enactment of this Act, sub-*
10 *mit to Congress a report containing the results of the assess-*
11 *ment conducted under subsection (a).*

12 **SEC. 129. CATALOGUE OF EARTH-THREATENING COMETS**
13 **AND ASTEROIDS.**

14 **(a) REQUIREMENT.**—*To the extent practicable, the Na-*
15 *tional Aeronautics and Space Administration, in coordina-*
16 *tion with the Department of Defense and the space agencies*
17 *of other countries, shall identify and catalogue within 10*
18 *years the orbital characteristics of all comets and asteroids*
19 *that are greater than 1 kilometer in diameter and are in*
20 *an orbit around the sun that crosses the orbit of the Earth.*

21 **(b) PROGRAM PLAN.**—*By February 1, 1995, the Ad-*
22 *ministrator shall submit to the Congress a program plan,*
23 *including estimated budgetary requirements for fiscal years*
24 *1996 through 2000, to implement subsection (a).*

1 **SUBTITLE B—AERONAUTICS**

2 **SEC. 151. NATIONAL AERONAUTICAL FACILITIES POLICY.**

3 *It is the policy of the United States that—*

4 *(1) revitalizing national aeronautical facilities*
5 *shall be a major element of Federal investment in*
6 *aeronautical research and development; and*

7 *(2) industry and government cost-sharing for fa-*
8 *cilities construction and use shall be investigated to*
9 *achieve aeronautics research and technology goals*
10 *within a constrained Federal budget.*

11 **SEC. 152. WORLDWIDE FACILITIES ASSESSMENT.**

12 *The President or his designees shall conduct an assess-*
13 *ment of all aeronautics facilities in the United States and*
14 *in other countries and report to Congress the results of this*
15 *assessment at the time the fiscal year 1996 budget is sub-*
16 *mitted. The assessment shall include—*

17 *(1) identification of all existing and planned*
18 *aeronautics research and development facilities in the*
19 *United States and in other countries;*

20 *(2) analysis of the capabilities of each aero-*
21 *nautics facility that impact aeronautical research*
22 *and technology objectives of the United States Govern-*
23 *ment and domestic industries; and*

24 *(3) determination of the current use and plans*
25 *for use of foreign aeronautics facilities for research*

1 *and technology activities of the United States Govern-*
2 *ment and domestic industries and the risk to the com-*
3 *petitiveness of the United States industry due to the*
4 *potential unintended transfer of technology.*

5 **SEC. 153. AERONAUTICS FACILITIES STRATEGY.**

6 *(a) STRATEGY.—The President or his designees shall*
7 *work closely with domestic industries to coordinate, develop,*
8 *and implement a strategy for Federal investment in aero-*
9 *navics research and technology and aeronautics facilities.*
10 *This strategy shall establish—*

11 *(1) priorities for Federal investment in aero-*
12 *navics facilities;*

13 *(2) a facilities implementation schedule to meet*
14 *research and technology project milestones and aero-*
15 *space industry market requirements;*

16 *(3) the projected cost of constructing and operat-*
17 *ing new facilities; and*

18 *(4) options and recommendations to provide*
19 *funding (including cost-sharing and risk-sharing with*
20 *industries and among Federal agencies and innova-*
21 *tive procurement, financing, or management arrange-*
22 *ments) for the construction of new aeronautics facili-*
23 *ties and for the operation of new aeronautics facili-*
24 *ties.*

1 (b) *DEADLINE.*—The strategy required by subsection
2 (a), and budget requirements associated with implementing
3 such strategy, shall accompany the fiscal year 1996 budget
4 submission to Congress.

5 **SEC. 154. FACILITIES SITE SELECTION PLAN.**

6 (a) *PRESIDENT TO DEVELOP SITE PLAN.*—The Presi-
7 dent shall develop a site selection plan for the location of
8 new aeronautics research facilities, consistent with the
9 strategy developed under section 153 of this Act, and submit
10 the plan to Congress by March 1, 1995.

11 (b) *GENERAL FACTORS.*—In developing the plan, gen-
12 eral factors to be considered for site selection shall include—

- 13 (1) cost;
- 14 (2) technical merit;
- 15 (3) extent of local cost sharing;
- 16 (4) availability of sufficient power and water;
- 17 (5) access to suitable transportation infrastruc-
- 18 ture;
- 19 (6) quality of local labor force; and
- 20 (7) other criteria as appropriate.

21 (c) *SPECIFIC FACTORS.*—In developing the plan, spe-
22 cific factors to be taken into consideration are—

- 23 (1) environmental requirements for operating
- 24 aeronautics research facilities at specific speeds and
- 25 regimes;

1 (2) *advantages and disadvantages of both rural*
2 *areas and Standard Metropolitan Statistical Areas;*
3 *and*

4 (3) *other criteria as appropriate.*

5 (d) *NO AREA TO BE RULED OUT.—No area of the*
6 *United States shall be ruled out for consideration of a pro-*
7 *posal for development of new aeronautics research facilities.*

8 **SEC. 155. AERONAUTICAL BASIC RESEARCH PLAN.**

9 (a) *PLAN.—The Administrator of the National Aero-*
10 *navics and Space Administration shall develop an aero-*
11 *nautical basic research investment plan as part of the Re-*
12 *search and Technology Base of the Administration which—*

13 (1) *describes the aeronautical basic research un-*
14 *derway within the Administration, including a re-*
15 *view of the status of basic research in critical aero-*
16 *navics disciplines;*

17 (2) *establishes goals and objectives for aeronauti-*
18 *cal basic research of the Administration to advance*
19 *the critical disciplines required by United States in-*
20 *dustry for such research;*

21 (3) *identifies the priorities for aeronautical basic*
22 *research of the Administration required by industry*
23 *to advance United States long-term competitiveness;*

1 (4) describes the anticipated impact of aero-
2 nautical basic research of the Administration on
3 United States long-term competitiveness;

4 (5) encourages the transfer of Government-devel-
5 oped technologies to the private sector to promote eco-
6 nomic strength and competitiveness; and

7 (6) identifies opportunities for aeronautical basic
8 research to be performed by minority-owned and
9 women-owned businesses within the aeronautical
10 basic research industry.

11 (b) *REPORT TO CONGRESS.*—The Administrator shall
12 update the plan described in subsection (a) annually and
13 transmit the plan to Congress with the Administration's
14 annual budget request.

15 **SEC. 156. JOINT AERONAUTICAL RESEARCH AND DEVELOP-**
16 **MENT PRIORITIES.**

17 The Administrator of the National Aeronautics and
18 Space Administration shall work with the heads of other
19 appropriate Federal agencies to identify and establish pri-
20 orities for research on aeronautical technologies that will
21 enhance the competitiveness of the United States in aero-
22 nautics, including—

23 (1) research on next-generation wind tunnel and
24 advanced wind tunnel instrumentation technology,

1 (2) research on advanced engine materials, en-
 2 gine concepts, and testing of propulsion systems or
 3 components of the high-speed civil transport research
 4 program,

5 (3) advanced general aviation research,

6 (4) advanced hypersonic aeronautical research,

7 (5) selected programs that jointly enhance public
 8 and private aeronautical technology development,

9 (6) an opportunity for private contractors to be
 10 involved in such research and development; and

11 (7) the transfer of Government-developed tech-
 12 nologies to the private sector to promote economic
 13 strengths and competitiveness.

14 **TITLE II—COMMERCIAL SPACE** 15 **LAUNCH AMENDMENTS**

16 **SEC. 201. COMMERCIAL REENTRY VEHICLES.**

17 Chapter 701 of title 49, United States Code, is amend-
 18 ed—

19 (1) in the table of sections—

20 (A) by amending the item relating to sec-
 21 tion 70104 to read as follows:

“70104. Restrictions on launches, operations, and reentries”;

22 (B) by amending the item relating to sec-
 23 tion 70108 to read as follows:

“70108. Prohibition, suspension, and end of launches, operation of launch
 sites, and reentries”;

1 (C) by amending the item relating to section 70109
2 to read as follows:

“70109. Preemption of scheduled launches or reentries”;

3 and

4 (D) by adding at the end the following new
5 item:

“70120. Report to Congress”;

6 (2) in section 70102—

7 (A) by inserting “from Earth” after “and
8 any payload” in paragraph (3);

9 (B) by redesignating paragraphs (10)
10 through (12) as paragraphs (12) through (14),
11 respectively; and

12 (C) by inserting after paragraph (9) the fol-
13 lowing new paragraphs:

14 “(10) ‘reenter’ and ‘reentry’ mean to return pur-
15 posefully, or attempt to return, a reentry vehicle and
16 payload, if any, from Earth orbit or outer space to
17 Earth.

18 “(11) ‘reentry vehicle’ means any vehicle de-
19 signed to return from Earth orbit or outer space to
20 Earth substantially intact.”;

21 (3) in section 70104—

22 (A) by amending the section designation
23 and heading to read as follows:

1 **“§ 70104. Restrictions on launches, operations, and reentries”;**

2 (B) by inserting “, or reenter a reentry ve-
3 hicle,” after “operate a launch site” each place
4 it appears in subsection (a);

5 (C) by inserting “or reentry” after “launch
6 or operation” in subsection (a) (3) and (4);

7 (D) in subsection (b)—

8 (i) by striking “launch license” and
9 inserting in lieu thereof “license”;

10 (ii) by inserting “or reenter” after
11 “may launch”; and

12 (iii) by inserting “or reentering” after
13 “related to launching”; and

14 (E) in subsection (c)—

15 (i) by amending the subsection heading
16 to read as follows: “*PREVENTING LAUNCHES*
17 *OR REENTRIES.—*”;

18 (ii) by inserting “or reentry” after
19 “prevent the launch”; and

20 (iii) by inserting “or reentry” after
21 “decides the launch”;

22 (4) in section 70105—

23 (A) by inserting “, or reentry of a reentry
24 vehicle,” after “operation of a launch site” in
25 subsection (b)(1); and

1 (B) by striking “or operation” and insert-
 2 ing in lieu thereof “, operation, or reentry” in
 3 subsection (b)(2)(A);

4 (5) in section 70106(a)—

5 (A) by inserting “or reentry site” after “ob-
 6 server at a launch site”; and

7 (B) by inserting “or reentry vehicle” after
 8 “assemble a launch vehicle”;

9 (6) in section 70108—

10 (A) by amending the section designation
 11 and heading to read as follows:

12 “§ 70108. **Prohibition, suspension, and end of launches, operation**
 13 **of launch sites, and reentries**”;

14 and

15 (B) in subsection (a)—

16 (i) by inserting “, or reentry of a re-
 17 entry vehicle,” after “operation of a launch
 18 site”; and

19 (ii) by inserting “or reentry” after
 20 “launch or operation”;

21 (7) in section 70109—

22 (A) by amending the section designation
 23 and heading to read as follows:

24 “§ 70109. **Preemption of scheduled launches or reentries**”;

25 (B) in subsection (a)—

1 (i) by inserting “or reentry” after “en-
2 sure that a launch”;

3 (ii) by inserting “, reentry site,” after
4 “United States Government launch site”;

5 (iii) by inserting “or reentry date com-
6 mitment” after “launch date commitment”;

7 (iv) by inserting “or reentry” after
8 “obtained for a launch”;

9 (v) by inserting “, reentry site,” after
10 “access to a launch site”;

11 (vi) by inserting “, or services related
12 to a reentry,” after “amount for launch
13 services”; and

14 (vii) by inserting “or reentry” after
15 “the scheduled launch”; and

16 (C) in subsection (c), by inserting “or re-
17 entry” after “prompt launching”;

18 (8) in section 70110—

19 (A) by inserting “or reentry” after “prevent
20 the launch” in subsection (a)(2); and

21 (B) by inserting “, or reentry of a reentry
22 vehicle,” after “operation of a launch site” in
23 subsection (a)(3)(B);

24 (9) in section 70112—

1 (A) by inserting “or reentry” after “one
2 launch” in subsection (a)(3);

3 (B) by inserting “or reentry” after “launch
4 services” in subsection (a)(4);

5 (C) by inserting “or a reentry” after
6 “launch services” each place it appears in sub-
7 section (b);

8 (D) by inserting “or Reentries” after
9 “Launches” in the heading for subsection (e);
10 and

11 (E) by inserting “or reentry” after “launch
12 site” in subsection (e);

13 (10) in section 70113(a)(1) and (d)(1) and (2),
14 by inserting “or reentry” after “one launch” each
15 place it appears;

16 (11) in section 70115(b)(1)(D)(i)—

17 (A) by inserting “reentry site,” after
18 “launch site,”; and

19 (B) by inserting “or reentry vehicle” after
20 “site of a launch vehicle”;

21 (12) in section 70117—

22 (A) by inserting “or reenter a reentry vehi-
23 cle” after “operate a launch site” in subsection
24 (a);

1 (B) by inserting “or reentry” after “ap-
 2 proval of a space launch” in subsection (d);

3 (C) in subsection (f)—

4 (i) by inserting “or Reentry” after
 5 “Launch” in the subsection heading;

6 (ii) by inserting “, reentry vehicle,”
 7 after “A launch vehicle”;

8 (iii) by inserting “or reentered” after
 9 “that is launched”; and

10 (iv) by inserting “or reentry” after
 11 “the launch”; and

12 (D) in subsection (g)—

13 (i) by inserting “reentry of a reentry
 14 vehicle,” after “or launch site,” in para-
 15 graph (1); and

16 (ii) by inserting “reentry,” after
 17 “launch,” in paragraph (2); and

18 (13) by adding at the end the following new sec-
 19 tion:

20 **“§ 70120. Report to Congress**

21 “The Secretary of Transportation shall submit to Con-
 22 gress an annual report to accompany the President’s budget
 23 request that—

24 “(1) describes all activities undertaken under
 25 this chapter, including a description of the process for

1 *the application for and approval of licenses under*
 2 *this chapter and recommendations for legislation that*
 3 *may further commercial launches and reentries; and*
 4 *“(2) reviews the performance of the regulatory*
 5 *activities and the effectiveness of the Office of Com-*
 6 *mercial Space Transportation.”.*

7 **SEC. 202. LICENSE APPLICATION.**

8 *(a) Section 70105 of title 49, United States Code, is*
 9 *amended—*

10 *(1) in subsection (a), by striking “receiving an*
 11 *application” both places it appears and inserting in*
 12 *lieu thereof “accepting an application in accordance*
 13 *with subsection (b)(2)(D)”;*

14 *(2) by striking “and” at the end of subsection*
 15 *(b)(2)(B);*

16 *(3) by striking the period at the end of sub-*
 17 *section (b)(2)(C) and inserting in lieu thereof “;*
 18 *and”; and*

19 *(4) by adding at the end of subsection (b)(2) the*
 20 *following new subparagraph:*

21 *“(D) regulations establishing criteria for ac-*
 22 *cepting an application for a license under this*
 23 *chapter.”.*

24 *(b) The amendment made by subsection (a)(1) shall*
 25 *take effect upon the effective date of final regulations issued*

1 pursuant to section 70105(b)(2)(D) of title 49, United
2 States Code.

3 **SEC. 203. SPACE ADVERTISING.**

4 (a) *DEFINITION.*—Section 70102 of title 49, United
5 States Code, is amended by inserting after paragraph (14),
6 as redesignated by section 301(2)(B) of this title, the follow-
7 ing new paragraph:

8 “(15) ‘obtrusive space advertising’ means adver-
9 tising in outer space that is capable of being recog-
10 nized by a human being on the surface of the earth
11 without the aid of a telescope or other technological
12 device;”.

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

16 **“§ 70109a. Space advertising**

17 “(a) *LICENSING.*—Notwithstanding the provisions of
18 this chapter or any other provision of law, the Secretary
19 shall not—

20 “(1) issue or transfer a license under this chap-
21 ter; or

22 “(2) waive the license requirements of this chap-
23 ter;

24 for the launch of a payload containing any material to be
25 used for the purposes of obtrusive space advertising.

1 “(b) *LAUNCHING*.—No holder of a license under this
2 chapter may launch a payload containing any material to
3 be used for purposes of obtrusive space advertising on or
4 after the date of enactment of the Aeronautics and Space
5 Policy Act of 1994.

6 “(c) *COMMERCIAL SPACE ADVERTISING*.—Nothing in
7 this section shall apply to nonobstructive commercial space
8 advertising, including advertising on commercial space
9 transportation vehicles, space infrastructure, payloads,
10 space launch facilities, and launch support facilities.”.

11 (c) *NEGOTIATION WITH FOREIGN LAUNCHING NA-*
12 *TIONS*.—

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

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

22 (3) *As used in this subsection, the term “foreign*
23 *launching nation” means a nation—*

24 (A) *which launches, or procures the launch-*
25 *ing of, a payload into outer space; or*

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

3 (d) CLERICAL AMENDMENT.—The table of sections for
4 chapter 701 of title 49, United States Codes, is amended
5 by inserting the following after the item relating to section
6 70109:

“70109a. Space advertising”.

7 **TITLE III—REVISIONS TO LAND**
8 **REMOTE SENSING POLICY**
9 **ACT OF 1992**

10 **SEC. 301. AMENDMENTS.**

11 The Land Remote Sensing Policy Act of 1992 (15
12 U.S.C. 5601 et seq.) is amended—

13 (1) by amending section 2(9) to read as follows:

14 “(9) Because Landsat data are particularly im-
15 portant for global environmental change research, the
16 program should be managed by an integrated team
17 consisting of the National Aeronautics and Space Ad-
18 ministration and the Department of Commerce.”;

19 (2) in sections 3(6)(A), 101 (a) and (b), 103(b),
20 and 504, by striking “Secretary of Defense” and in-
21 serting in lieu thereof “Secretary”;

22 (3) in section 3(6)(B), by striking “Department
23 of Defense and” and inserting in lieu thereof “and the
24 Department of Commerce, as well as the Department
25 of Interior, or”;

1 (4) in section 101(b)(1), by striking “, with the
2 addition of a tracking and data relay satellite com-
3 munications capability”;

4 (5) in section 101(b)(2), by striking all after
5 “baseline funding profile” and inserting in lieu there-
6 of “for the development and operational life of
7 Landsat 7 that is mutually acceptable to the agencies
8 constituting the Landsat Program Management;”;

9 (6) in section 101(b), by inserting after para-
10 graph (4) the following:

11 “The Director of the Office of Science and Technology Pol-
12 icy shall, no later than 60 days after enactment of the Aero-
13 nautics and Space Policy Act of 1994, transmit the man-
14 agement plan to the Committee on Science, Space, and
15 Technology of the House of Representatives and the Com-
16 mittee on Commerce, Science, and Transportation of the
17 Senate.”;

18 (7) in sections 101(c)(3), 202(b)(1), 501(a), and
19 502(c)(7), by striking “section 506” and inserting
20 “section 507”;

21 (8) in section 102(b)(1), by striking “by the ex-
22 pected end of the design life of Landsat 6” and insert-
23 ing in lieu thereof “by the predicted end of life of
24 Landsat 5, or as soon as practicable thereafter”;

1 (9) in section 103(a), by striking “section 105”
2 and inserting in lieu thereof “section 104”;

3 (10) by adding at the end of section 103 the fol-
4 lowing:

5 “(c) IMPLEMENTATION OF AGREEMENT.—If negotia-
6 tions under subsection (a) result in an agreement that the
7 Landsat Program Management determines generally
8 achieves the goal stated in paragraphs (1) through (8) of
9 subsection (a), the Landsat Program Management shall
10 award an extension, until the practical demise of Landsat
11 4 or Landsat 5, whichever occurs later, of the existing con-
12 tract with the Landsat 6 contractor incorporating the terms
13 of such agreement.”;

14 (11) by striking section 104 and redesignating
15 section 105 as section 104;

16 (12) in section 201(c), by amending the second
17 sentence thereof to read as follows: “If the Secretary
18 determines that the license requested by the applicant
19 should not be issued, the Secretary shall inform the
20 applicant within such 120-day period of the reasons
21 for such determination and the specific actions re-
22 quired of the applicant to obtain a license.”;

23 (13) in section 202(b)(6), by inserting “signifi-
24 cant or substantial” before “agreement”;

1 (14) in section 204, by striking “may” and in-
2 serting in lieu thereof “shall”;

3 (15) by inserting at the end of title II the follow-
4 ing new section:

5 **“SEC. 206. NOTIFICATION.**

6 “(a) *LIMITATIONS ON LICENSEE.*—Within 30 days
7 after any determination by the Secretary to require a li-
8 censee to limit collection or distribution of data from a sys-
9 tem licensed pursuant to this title, the Secretary shall re-
10 port to the Congress the reasons for such determination, the
11 limitations imposed on the licensee, and the period during
12 which such limitations apply.

13 “(b) *TERMINATION, MODIFICATION, OR SUSPEN-*
14 *SION.*—Within 30 days after any action by the Secretary
15 to seek an order of injunction or other judicial determina-
16 tion pursuant to section 203(a)(2), the Secretary shall no-
17 tify the Congress of such action and provide the reasons
18 for such action.”;

19 (16) in section 302—

20 (A) by striking “(a) *GENERAL RULE.*—”;

21 and

22 (B) by striking subsection (b); and

23 (17) in section 507, by striking subsection (a)
24 and subsection (b)(1) and inserting in lieu thereof the
25 following:

1 “(a) *RESPONSIBILITY OF SECRETARY OF DEFENSE.—*

2 *The Secretary shall consult with the Secretary of Defense*

3 *on all matters under this Act affecting national security.*

4 *The Secretary of Defense shall be responsible for determin-*

5 *ing those conditions, consistent with this Act, necessary to*

6 *meet national security concerns of the United States and*

7 *for notifying the Secretary promptly of such conditions.*

8 *Within 60 days after receiving a request from the Secretary,*

9 *the Secretary of Defense shall recommend any conditions*

10 *for a license issued under title II, consistent with this Act,*

11 *that the Secretary of Defense determines are needed to pro-*

12 *tect the national security of the United States. If no such*

13 *recommendations have been received by the Secretary with-*

14 *in such 60-day period, the Secretary may deem activities*

15 *proposed in the license application to be consistent with the*

16 *protection of the national security of the United States.*

17 “(b) *RESPONSIBILITY OF SECRETARY OF STATE.—*

18 “(1) *The Secretary shall consult with the Sec-*

19 *retary of State on all matters under this Act affecting*

20 *international obligations of the United States. The*

21 *Secretary of State shall be responsible for determining*

22 *those conditions, consistent with this Act, necessary to*

23 *meet international obligations and policies of the*

24 *United States and for notifying the Secretary*

25 *promptly of such conditions. Within 60 days after re-*

1 ceiving a request from the Secretary, the Secretary of
2 State shall recommend any conditions for a license is-
3 sued under title II, consistent with this Act, that the
4 Secretary of State determines are needed to meet ex-
5 isting international obligations of the United States.
6 If no such recommendations have been received by the
7 Secretary within such 60-day period, the Secretary
8 may deem activities proposed in the license applica-
9 tion to be consistent with existing international obli-
10 gations of the United States.”.

11 **TITLE IV—TECHNOLOGY INVEST-**
12 **MENT POLICY FOR AERO-**
13 **NAUTICS AND SPACE**

14 **SEC. 401. FINDINGS.**

15 The Congress finds that—

16 (1) the United States aerospace industry has
17 provided a major contribution to the competitiveness
18 of the United States;

19 (2) the international market share of the United
20 States aerospace industry has steadily eroded due to
21 competition from foreign consortia that receive sub-
22 stantial direct subsidies from their governments;

23 (3) the United States aerospace industry has
24 been severely impacted by the reductions in defense

1 *spending, leading to reduced levels of research and de-*
2 *velopment investment by industry;*

3 *(4) increased contribution to the health of the*
4 *United States economy by the National Aeronautics*
5 *and Space Administration is important to the long-*
6 *term support of civilian aeronautics and space activi-*
7 *ties; and*

8 *(5) no effective means have been developed by*
9 *which the National Aeronautics and Space Adminis-*
10 *tration can accurately measure the contribution of its*
11 *research toward achieving United States competitive-*
12 *ness and maintaining technological leadership.*

13 **SEC. 402. AERONAUTICS AND SPACE POLICY OF THE NA-**
14 **TIONAL AERONAUTICS AND SPACE ADMINIS-**
15 **TRATION.**

16 *It is the policy of the United States that—*

17 *(1) improving the competitive capability of the*
18 *United States industry shall be a fundamental goal of*
19 *the aeronautical and space research and development*
20 *programs of the National Aeronautics and Space Ad-*
21 *ministration;*

22 *(2) the investment in aeronautics and space tech-*
23 *nology by the National Aeronautics and Space Ad-*
24 *ministration shall be closely coordinated with United*
25 *States industry; and*

1 (3) the establishment of industry-led,
 2 *precompetitive consortia, alliances, or other entities*
 3 *shall be encouraged to better identify and coordinate*
 4 *the industry requirements for advanced technologies*
 5 *and facilities.*

6 **SEC. 403. AMENDMENTS TO THE NATIONAL AERONAUTICS**
 7 **AND SPACE ACT OF 1958.**

8 (a) *TECHNICAL CORRECTION AMENDMENTS.*—

9 (1) *Section 214 of the National Aeronautics and*
 10 *Space Administration Authorization Act, Fiscal Year*
 11 *1989 is amended by striking “(c)” both places it ap-*
 12 *pears and inserting in lieu thereof “(d)”.*

13 (2) *The amendment made by paragraph (1) shall*
 14 *be effective as of the date of enactment of the Act re-*
 15 *ferred to in paragraph (1).*

16 (b) *REPORTS TO THE CONGRESS.*—Section 206(a) of
 17 *the national Aeronautics and Space Act of 1958 (42 U.S.C.*
 18 *2476(a)) is amended—*

19 (1) *by striking “January” and inserting in lieu*
 20 *thereof “May” and*

21 (2) *by striking “calendar” and inserting in lieu*
 22 *thereof “fiscal”.*

23 (c) *COMPETITIVENESS.*—Section 102 of the National
 24 *Aeronautics and Space Act of 1958 (42 U.S.C. 2451) is*
 25 *amended—*

1 (1) by striking subsection (e) and inserting the
2 following:

3 “(e) The aeronautical and space activities of the Unit-
4 ed States shall be conducted so as to contribute materially
5 to the economic growth, competitiveness, and productivity
6 of the Nation.”;

7 (2) by striking subsection (f) and by redesignat-
8 ing subsections (g) and (h), as subsections (f) and (g),
9 respectively; and

10 (3) in subsection (g), as so redesignated, by strik-
11 ing “(f), and (g)” and inserting “and (f)”.

12 (d) *AIR TRANSPORTATION*.—Section 102(d) of such
13 *Act is amended*—

14 (1) by striking “and” in (8) and

15 (2) by adding the following after “(9)”:

16 “(10) The research required for the improvement
17 of the safety, capacity, and efficiency of the United
18 States air transportation system through close coordi-
19 nation among the agencies of the Federal Govern-
20 ment.”.

21 SEC. 404. TECHNOLOGY DEVELOPMENT AND COMMER-
22 CIALIZATION GOALS.

23 *The Administrator shall require that, to the maximum*
24 *extent practicable, aeronautical and space projects of the*
25 *National Aeronautics and Space Administration—*

1 (1) incorporate a technology plan that fosters
2 technological advances of value to the mission of the
3 National Aeronautics and Space Administration
4 which benefits the economy of the United States and
5 reduces the life cycle costs of such projects;

6 (2) promote commercial technology applications;

7 (3) measure and evaluate technology development
8 and the potential for commercialization; and

9 (4) seek the involvement of United States indus-
10 try.

11 **SEC. 405. INDUSTRY TECHNOLOGY PROGRAM.**

12 (a) *PURPOSE; CRITERIA.*—The Administrator shall es-
13 tablish a competitive program under which the Adminis-
14 trator may fund research and development projects pro-
15 posed by industry-led consortia, alliances, or other entities,
16 for the purpose of advancing aeronautics and space tech-
17 nologies. In selecting projects to be funded under this sec-
18 tion, the Administrator shall weigh and consider—

19 (1) the extent of funding provided by industry
20 for such project;

21 (2) each project's scientific and technical merit;

22 (3) the potential of the project to advance mis-
23 sion needs of the National Aeronautics and Space Ad-
24 ministration;

1 (4) *each project's potential to advance tech-*
2 *nologies that enhance the competitiveness of United*
3 *States industry in global markets; and*

4 (5) *such other criteria as the Administrator con-*
5 *siders appropriate to carry out the purposes of this*
6 *section.*

7 (b) *COST-SHARING.—Amounts appropriated for this*
8 *program may be obligated only to the extent that an equal*
9 *or greater amount of non-Federal funding is provided for*
10 *this program. Of the non-Federal funding provided for this*
11 *program, the Administrator shall require contributions*
12 *from sources other than those identified as Independent Re-*
13 *search and Development.*

14 (c) *FINANCING MECHANISMS.—In funding the tech-*
15 *nology projects selected under this section, the Adminis-*
16 *trator is encouraged—*

17 (1) *to make greater use of the authority of the*
18 *National Aeronautics and Space Administration*
19 *under section 203(c)(5) of the National Aeronautics*
20 *and Space Act of 1958 (42 U.S.C. 2473(c)(5)) espe-*
21 *cially when applied to non-aerospace firms; and*

22 (2) *to enter into innovative procurement, financ-*
23 *ing, and management arrangement, consistent with*
24 *existing statutes.*

1 (d) *COORDINATION WITH FEDERAL AGENCIES.*—In
2 *carrying out this section, the Administrator shall consult*
3 *with the Secretaries of Commerce, Defense, Energy, and*
4 *Transportation and with such other Federal agency heads*
5 *as the Administrator considers appropriate.*

6 **SEC. 406. CONDITIONS ON TECHNOLOGY INVESTMENT;**
7 **ECONOMIC BENEFIT.**

8 *In funding technology programs and activities under*
9 *this title, the Administrator shall ensure that the principal*
10 *economic benefits accrue to the economy of the United*
11 *States. The Administrator may consider such specific cri-*
12 *teria as appropriate, and in developing such criteria, shall*
13 *consult with appropriate Federal agency heads.*

14 **SEC. 407. ROLE OF PROCUREMENT IN TECHNOLOGY IN-**
15 **VESTMENT.**

16 *The Administrator, in meeting aeronautical and space*
17 *mission needs, shall coordinate and direct resources of the*
18 *National Aeronautics and Space Administration in the*
19 *area of procurement to—*

- 20 (1) *advance state-of-the-art technologies;*
21 (2) *assess and procure, where appropriate, com-*
22 *mercially available technologies from the marketplace;*
23 (3) *use performance incentives; and*
24 (4) *reduce the paperwork requirements associated*
25 *with procurement.*

1 **SEC. 408. COORDINATION WITH OTHER FEDERAL PRO-**
2 **GRAMS.**

3 (a) *TECHNOLOGY PROGRAMS AND TECHNOLOGY*
4 *TRANSFER PROGRAMS.*—*To ensure a consistent Federal in-*
5 *vestment policy and to preclude multiple awards for a sin-*
6 *gle proposal, the Administrator shall ensure that the tech-*
7 *nology investment activities established under this title are*
8 *coordinated closely with existing and future—*

9 (1) *Federal technology programs such as the*
10 *Technology Reinvestment Program of the Advanced*
11 *Research Projects Agency and the Advanced Tech-*
12 *nology Program of the National Institute of Stand-*
13 *ards and Technology; and*

14 (2) *Federal technology transfer programs and ac-*
15 *tivities established to promote and advocate the use of*
16 *technologies developed in the Federal laboratories.*

17 (b) *IDENTIFICATION OF FUNDING RECEIVED FROM*
18 *OTHER AGENCIES.*—*The Administrator shall identify, as*
19 *part of the annual budget submission to Congress, all fund-*
20 *ing received by the National Aeronautics and Space Admin-*
21 *istration from other Federal agencies for technology invest-*
22 *ment and development, including funds from programs list-*
23 *ed in (a)(1) above.*

24 **SEC. 409. INTERAGENCY TECHNOLOGY INITIATIVES.**

25 *As part of the National Aeronautics and Space Ad-*
26 *ministration's annual budget submission to Congress, the*

1 Administrator shall identify funding requirements, project
2 milestones, and 5-year budget projections, for the portion
3 undertaken by the National Aeronautics and Space Admin-
4 istration of each interagency technology project.

5 **SEC. 410. COORDINATION WITH OTHER NASA PROGRAMS.**

6 (a) *SMALL BUSINESS INNOVATION RESEARCH.*—The
7 Administrator shall coordinate the technology investment
8 activities under this title with the Small Business Innova-
9 tion Research activities of the National Aeronautics and
10 Space Administration to ensure the effectiveness of funding
11 to small businesses, to the maximum extent permitted by
12 law.

13 (b) *INDEPENDENT RESEARCH AND DEVELOPMENT*
14 *FUNDS.*—The Administrator shall identify all funds pro-
15 vided to contractors of the National Aeronautics and Space
16 Administration for activities commonly referred to as
17 “Independent Research and Development” and coordinate
18 such funds with the technology investment activities under
19 this title.

20 (c) *TECHNOLOGY TRANSFER AND COMMERCIAL PRO-*
21 *GRAMS.*—The Administrator shall coordinate the activities
22 of ongoing and future technology transfer, innovation, and
23 commercial programs of the National Aeronautics and
24 Space Administration with the technology investment ac-
25 tivities under this title.

1 **SEC. 411. PERSONNEL INCENTIVES.**

2 *To encourage the personnel of the National Aeronautics*
3 *and Space Administration to pursue technology innovation*
4 *and development, the Administrator shall provide personnel*
5 *incentives, including—*

6 *(1) promotions and within-grade increases;*

7 *(2) bonuses and cash awards under the inven-*
8 *tions and contributions system and senior executive*
9 *service; and*

10 *(3) paid leave, sabbaticals, or intergovernmental*
11 *personnel transfers to other Federal agencies or the*
12 *private sector to pursue technology innovation and*
13 *development, as the Administrator deems appropriate.*

14 **SEC. 412. ANNUAL REPORT TO CONGRESS.**

15 *The Administrator shall assess the technology invest-*
16 *ment activities established under this title and shall submit*
17 *a report to Congress on the results of such assessment of*
18 *activities. The report shall accompany the annual budget*
19 *submission to Congress.*

20 **SEC. 413. APPLICATION OF ANTITRUST LAWS.**

21 *Nothing in this title shall be construed to create an*
22 *immunity from any civil or criminal action under any*
23 *Federal or State antitrust law, or to alter or restrict in*
24 *any manner the applicability of any Federal or State anti-*
25 *trust law.*

1 **SEC. 414. DEFINITIONS.**

2 *For the purposes of this title, the term—*

3 *(1) “Federal laboratory” has the meaning given*
4 *such term in section 4(6) or the Stevenson-Wydler*
5 *Technology Innovation Act of 1980 (15 U.S.C.*
6 *3703(6)).*

7 *(2) “United States” means the several States, the*
8 *District of Columbia, Puerto Rico, the Virgin Islands,*
9 *Guam, American Samoa, the Northern Mariana Is-*
10 *lands, and any other territory or possession of the*
11 *United States.*

12 **TITLE V—NATIONAL AERO-**
13 **NAUTICS AND SPACE ADMIN-**
14 **ISTRATION BUDGET**

15 **SEC. 501. SHORT TITLE.**

16 *This title may be cited as the “National Aeronautics*
17 *and Space Administration Consistency in Budgeting Act*
18 *of 1994”.*

19 **SEC. 502. FIVE-YEAR PLAN.**

20 *(a) IN GENERAL.—The Administrator of the National*
21 *Aeronautics and Space Administration shall submit to*
22 *Congress each year, not more than 30 days after the date*
23 *on which the President’s budget is submitted to Congress*
24 *under section 1105(a) of title 31, United States Code, a 5-*
25 *year program plan reflecting the expenditures and proposed*

1 *appropriations included in the President's budget for the*
2 *Administration.*

3 *(b) CONSISTENCY OF AMOUNTS.—*

4 *(1) IN GENERAL.—The Administrator shall en-*
5 *sure that the amounts described in paragraph (2)(A)*
6 *for any fiscal year are consistent with amounts de-*
7 *scribed in paragraph (2)(B) for that fiscal year.*

8 *(2) AMOUNTS DESCRIBED.—The amounts re-*
9 *ferred to in paragraph (1) are—*

10 *(A) the amount specified in program and*
11 *budget information submitted to Congress by the*
12 *Administrator in support of expenditure esti-*
13 *mates and proposed appropriations in the Presi-*
14 *dent's budget submitted under section 1105(a) of*
15 *title 31, United States Code, for any fiscal year,*
16 *as shown in the 5-year program plan submitted*
17 *under subsection (a); and*

18 *(B) the total amount of estimated expendi-*
19 *tures and proposed appropriations necessary to*
20 *support the programs, projects, and activities of*
21 *the Administration, included under such section*
22 *in the President's budget submitted for any fiscal*
23 *year.*

Amend the title so as to read: “An Act to amend the National Aeronautics and Space Act of 1958, and for other purposes.”.

Attest:

Secretary.

HR 4489 EAS——2

HR 4489 EAS——3

HR 4489 EAS——4

HR 4489 EAS——5

HR 4489 EAS——6