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S. 2292

To provide for continued access by the Federal Government to land remote sensing data from satellites, and for other purposes.

IN THE SENATE OF THE UNITED STATES

FEBRUARY 9 (legislative day, FEBRUARY 6), 1984

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

A BILL

To provide for continued access by the Federal Government to land remote sensing data from satellites, 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,*
3 That this Act may be cited as the "Land Remote Sensing
4 Satellite Communications Act of 1984".

5 TITLE I—DECLARATION OF FINDINGS AND

6 PURPOSES

7 FINDINGS

8 SEC. 101. The Congress finds and declares that—

1 (1) the Federal Government's experimental Land-
2 sat system has established the United States as the
3 world leader in land remote sensing satellite technol-
4 ogy;

5 (2) the continuous collection of land remote sens-
6 ing data from satellites is of major benefit in managing
7 the Earth's natural resources;

8 (3) private sector involvement in space can pro-
9 vide sound bases for the future growth of space-based
10 technologies;

11 (4) it is necessary to determine the extent to
12 which it is appropriate and in the national interest for
13 the private sector to assume responsibility for civil land
14 remote sensing satellite system operation and data
15 management;

16 (5) the existing civil land remote sensing system
17 of the United States involves important international
18 commitments;

19 (6) civil land remote sensing involves relevant na-
20 tional security concerns;

21 (7) it is in the national interest to promote the es-
22 tablishment of private land remote sensing ventures;

23 (8) land remote sensing development has been in-
24 hibited by lack of market development and private in-
25 dustry is best suited to develop the data market;

3

1 (9) it is doubtful that the private sector alone cur-
 2 rently can develop a total land remote sensing system
 3 because of the high risk and large capital expenditure
 4 involved;

5 (10) cooperation between the Federal Government
 6 and private industry is necessary to manage effectively
 7 the existing Landsat system so as to ensure data con-
 8 tinuity, to honor international and national security re-
 9 sponsibilities, and to broaden the data market enough
 10 to support self-sufficient private ventures; and

11 (11) such cooperation should be structured to
 12 minimize the amount of support and regulation by the
 13 Federal Government, while assuring continuous avail-
 14 ability to the Federal Government of land remote sens-
 15 ing data.

16 **PURPOSES**

17 **SEC. 102.** The purposes of this Act are to—

18 (1) guide the Federal Government in achieving
 19 proper involvement of the private sector by providing a
 20 framework for gradual commercialization of land
 21 remote sensing, allowing an increasing private role as
 22 the market for data expands, and assuring continuous
 23 data availability to the Federal Government;

24 (2) preserve the leading position of the United
 25 States in civil land remote sensing, preserve the na-

1 tional security, and honor the international obligations
2 of the United States;

3 (3) reaffirm the right of all nations to sense the
4 Earth's surface and acquire land remote sensing data,
5 so long as such data are made available to all potential
6 users on a nondiscriminatory basis; and

7 (4) minimize the duration and amount of further
8 Federal investment necessary to assure data continuity
9 while achieving commercialization of civil land remote
10 sensing.

11 **DEFINITIONS**

12 **SEC. 103.** For purposes of this Act, the term—

13 (1) "Landsat system" means Landsat 4 and Land-
14 sat D-prime, and related ground equipment, systems,
15 and facilities;

16 (2) "nondiscriminatory basis" means without pref-
17 erence, bias, or any arrangement that favors any pur-
18 chaser or class of purchasers over another, such that—

19 (A) data products are made available to all
20 potential buyers at standard, published prices;

21 (B) all purchasers are given the same oppor-
22 tunities for access to data, such as timeliness of
23 availability and terms of delivery; and

24 (C) special arrangements, other than any ar-
25 rangement for exclusive access to data by any

1 purchaser, such as volume discounts, gathering of
2 data with certain characteristics requested by a
3 purchaser, and maintenance of secrecy regarding
4 any such arrangements, are permissible if the
5 availability and prices of such services are pub-
6 lished and uniformly available to all data purchas-
7 ers;

8
(3) "Secretary" means the Secretary of Com-
9 merce;

10 (4) "unenhanced data" means digital or minimally
11 processed signals collected from civil land remote sens-
12 ing satellites involving rectification of distortions, regis-
13 tration with respect to features of the Earth, and cali-
14 bration of spectral response; the term does not include
15 conclusions, manipulations, or calculations derived from
16 such signals or combination of the signals with other
17 data or information; and

18 (5) "United States private entity" means any non-
19 governmental entity or consortium of entities, the ma-
20 jority of whose assets is owned by citizens of the
21 United States, the majority of whose personnel is com-
22 prised of citizens of the United States, and whose prin-
23 cipal place of business is in the United States.

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1 TITLE II—OPERATION AND DATA MARKETING
2 OF LANDSAT SYSTEM

3 OPERATION

4 SEC. 201. (a) The National Oceanic and Atmospheric
5 Administration shall be responsible for—

6 (1) the orbit and data collection of Landsat 4, and
7 disposition of Landsat 4 upon the termination of its
8 useful operation, as determined and published by the
9 Secretary;

10 (2) the launch, orbit, and data collection of Land-
11 sat D-prime, and disposition of Landsat D-prime upon
12 the termination of its useful operation, as determined
13 and published by the Secretary;

14 (3) ground equipment and facilities which are used
15 to operate the Landsat system; and

16 (4) provisions of data to foreign ground stations
17 under the terms of existing memoranda of understand-
18 ing between the United States Government and nations
19 that operate ground stations.

20 (b) The Secretary may extend any such Memoranda of
21 Understanding if such extension provides for their expiration
22 upon the termination of the useful operation of the Landsat
23 system.

24 (c) The provisions of this section shall not prohibit the
25 National Oceanic and Atmospheric Administration from con-

1 tinuing to contract for the operation of the Landsat system,
2 so long as the administration retains—

3 (1) ownership of the system;

4 (2) ownership of the unenhanced data; and

5 (3) authority to make decisions concerning oper-
6 ation of the system.

7 **MARKETING OF UNENHANCED DATA**

8 **SEC. 202. (a)** In accordance with the requirements of
9 this title, the Secretary shall, to the extent provided in ad-
10 vance by appropriations Acts and in accordance with the pro-
11 visions of subsection (c) of this section, contract with a
12 United States private entity for the marketing of unenhanced
13 data collected according to the provisions of section 201 of
14 this title. Any such contract shall provide that—

15 (1) the contractor may set the prices of unen-
16 hanced data products, if the products are always avail-
17 able to all potential buyers at published, nondiscrimina-
18 tory prices and terms of access;

19 (2) the contractor shall compensate the United
20 States Government for the right to sell the data by
21 payment of an initial fee, a percentage of data sales re-
22 ceipts, or some combination of such fee and receipts;

23 (3) the contractor shall pay to the United States
24 Govenment the full purchase price of any unenhanced
25 data that the contractor elects to utilize for purposes

1 other than sale, in accordance with paragraph (4) of
2 this subsection; and

3 (4) the contractor shall not engage in any sale of
4 processed data except in a manner consistent with ap-
5 plicable antitrust laws.

6 (b) Prior to entering into such a contract, the Secretary
7 shall publish the requirements of subsection (a) (1) through
8 (4) of this section, and the contract shall be subject to such
9 requirements.

10 (c)(1) Any decision or proposed decision by the Secre-
11 tary to enter into any such contract shall be transmitted to
12 the Committee on Commerce, Science, and Transportation of
13 the Senate and the Committee on Science and Technology of
14 the House of Representatives for their review. No such deci-
15 sion or proposed decision shall be implemented unless (A) a
16 period of thirty days of continuous session of Congress has
17 passed after the receipt by each such committee of such
18 transmittal or (B) each such committee before the expiration
19 of such period has transmitted to the Secretary written notice
20 to the effect that such committee has no objection to the
21 decision or proposed decision. As part of such transmittal, the
22 Secretary shall include the information specified in subsection
23 (a) (1) through (4) of this section.

24 (2) For purposes of this section—

1 (A) continuity of session is broken only by an ad-
2 journalment sine die; and

3 (B) days on which either House is not in session
4 because of an adjournment of more than five days to a
5 day certain are excluded in the computation of such
6 period.

7 **AWARDING OF THE CONTRACT**

8 **SEC. 203.** The Secretary shall award any such contract
9 on the basis of—

10 (1) the financial return to the United States Gov-
11 ernment, based on any initial fee offered for marketing
12 rights and any percentage of data sales receipts offered
13 to the United States Government; and

14 (2) the ability to expand the market for unen-
15 hanced land remote sensing data.

16 **TITLE III—DATA CONTINUITY AFTER THE**
17 **LANDSAT SYSTEM**

18 **PURPOSE**

19 **SEC. 301.** It is the purpose of this title to—

20 (1) provide for a transition from operation by the
21 Federal Government to private, commercial operation
22 of land remote sensing satellite systems;

23 (2) determine, with minimal risk during the pro-
24 posed transition period, whether wholly private oper-

1 ation of land remote sensing is in the best interests of
2 the United States; and

3 (3) provide for the continuity of land remote sens-
4 ing satellite data after the termination of the operation
5 of the existing system, as described in title II of this
6 Act.

7 DATA CONTINUITY

8 SEC. 302. The Secretary shall evaluate proposals from
9 United States private entities for a contract for the develop-
10 ment of a system capable of generating land remote sensing
11 data and marketing such unenhanced data for a period of six
12 years. Such evaluation and any solicitation of proposals shall
13 be conducted by means of a competitive process. Such pro-
14 posals, at a minimum, shall specify—

15 (1) the quantities and qualities of data expected
16 from the system;

17 (2) the projected data upon which operations could
18 begin;

19 (3) the number of satellites to be constructed and
20 their expected lifetimes;

21 (4) any need for Federal funding to develop the
22 system;

23 (5) any percentage of sales receipts offered to the
24 Federal Government; and

1 (6) plans for expanding the market for land
2 remote sensing data.

3 NOTIFICATION REGARDING AWARDING OF THE CONTRACT

4 SEC. 303. (a) The Secretary shall evaluate the propos-
5 als referred to in section 302 of this title and, to the extent
6 provided in advance by appropriations Acts, may contract
7 with a United States private entity for the development of a
8 system capable of generating land remote sensing data and
9 marketing such unenhanced data for a period of six years. As
10 part of such evaluation, the Secretary shall analyze the ex-
11 pected outcome of each proposal, in terms of—

12 (1) the availability to the Federal Government of
13 at least the quantities and qualities of data used by the
14 Federal Government in fiscal year 1983;

15 (2) the availability of such data upon the expected
16 termination of the Landsat system;

17 (3) the cost to the Federal Government of devel-
18 oping the recommended system;

19 (4) the potential to expand the market for data;

20 (5) any percentage of data sales offered to the
21 Federal Government, in accordance with section 304
22 of this title; and

23 (6) such other factors as the Secretary deems ap-
24 propriate and relevant.

1 (b)(1) Any decision or proposed decision by the Secre-
2 tary to enter into any such contract shall be transmitted to
3 the Committee on Commerce, Science, and Transportation of
4 the Senate and the Committee on Science and Technology of
5 the House of Representatives for their review. No such deci-
6 sion or proposed decision shall be implemented unless (A) a
7 period of thirty days of continuous session of Congress has
8 passed after the receipt by each such committee of such
9 transmittal or (B) each such committee before the expiration
10 of such period has transmitted to the Secretary written notice
11 to the effect that such committee has no objection to the
12 decision or proposed decision. As part of such transmittal, the
13 Secretary shall include the information specified in subsection
14 (a) (1) through (6) of this section.

15 (2) For purposes of this section—

16 (A) continuity of session is broken only by an ad-
17 journment sine die; and

18 (B) days on which either House is not in session
19 because of an adjournment of more than five days to a
20 day certain are excluded in the computation of such
21 period.

22 **MARKETING INCENTIVE**

23 **SEC. 304.** In order to promote aggressive marketing of
24 land remote sensing data, any contract entered into pursuant
25 to this title may provide that the percentage of sales paid by

1 the contractor to the Federal Government shall decrease ac-
2 cording to stipulated increases in sales levels.

3 **SALE OF DATA**

4 **SEC. 305.** Any contract entered into pursuant to this
5 title shall provide that—

6 (1) the contractor will offer to sell and deliver un-
7 enhanced land remote sensing data to all potential
8 buyers on a nondiscriminatory basis;

9 (2) the contractor will engage in any sale of proc-
10 essed data only in a manner consistent with applicable
11 antitrust laws; and

12 (3) the contract shall not provide a guarantee of
13 purchases of data by the Federal Government from the
14 contractor.

15 **REPORT**

16 **SEC. 306.** Within two years after the date on which any
17 such contract becomes effective, the Secretary shall report to
18 the Congress on the progress and feasibility of the transition
19 to total private financing, operation, and ownership of a land
20 remote sensing satellite system, together with any legislative
21 recommendations to accomplish such transition.

22 **TERMINATION OF AUTHORITY**

23 **SEC. 307.** The authority granted by this title shall ter-
24minate ten years after the date of the beginning of any con-
25tract entered into according to the provisions of this title.

1 **TITLE IV—PRIVATE LAND REMOTE SENSING**
2 **SYSTEMS**

3 **GENERAL AUTHORITY**

4 **SEC. 401.** In consultation with other appropriate Feder-
5 al agencies, the Secretary shall license qualified United
6 States private entities to operate civil land remote sensing
7 satellite systems in accordance with the provisions of this
8 title.

9 **CONDITIONS FOR OPERATION**

10 **SEC. 402. (a)** No party or consortium may operate any
11 land remote sensing satellite system which is subject to the
12 jurisdiction or control of the United States without obtaining
13 a license pursuant to section 401 of this title.

14 **(b)** A party or consortium shall be licensed to operate its
15 system if—

16 (1) unenhanced land remote sensing data are
17 made available to all potential users on a nondiscrimi-
18 natory basis;

19 (2) in the case of a consortium, the system is ad-
20 ministered by a central, responsible entity established
21 by the consortium;

22 (3) no terms of the license issued under this title
23 protect the license holder from fair competition from
24 other license holders;

(6) agrees to comply with the national security obligations established by §6006

(4) the license provides that, before any party or consortium terminates its operations under the license, it will make disposition of any satellites in space in a manner satisfactory to the President; and

(5) the entity seeking to obtain the license agrees, as a condition for the receipt of such license, to provide to the Secretary any data generated under such license which the Secretary may request for the purpose of archiving, pursuant to section 602 of this Act.

(c)(1) The Secretary, in consultation with other appropriate Federal agencies *and consistent with the conditions developed under §6006,* shall be responsible for protection of national security interests and adherence to international responsibilities of the United States which are relevant to operation of private land remote sensing satellite systems, including—

(A) responsibility for all outer space activities of nongovernmental entities of the United States;

(B) liability for damage caused by space objects under registration or license by the Federal Government; and

(C) registration with appropriate international authorities of all objects launched into space by nongovernmental entities of the United States.

(2) In order to carry out paragraph (1) of this subsection, the Secretary shall, before licensing any private land

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1 remote sensing satellite system, secure an agreement from
2 the private entity or consortium that it will—

3 (A) furnish the Secretary with complete orbit and
4 data collection characteristics of the system, obtain ad-
5 vance approval of any intended deviation from such
6 characteristics, and inform the Secretary immediately
7 of any unintended deviation;

8 (B) obtain advance approval from the Secretary of
9 any agreement it intends to enter with a foreign
10 nation, entity, or consortium involving foreign nations
11 or entities; and

12 (C) operate the system in a manner that is con-
13 sistent with international law.

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14 (3) The Secretary, in order to carry out the responsibil-
15 ities specified in this title, may—

16 (A) inspect the facilities or financial records of any
17 entity that holds a license pursuant to this title;

18 (B) promulgate regulations to implement the pro-
19 visions of this title; and

20 (C) provide, within the licenses or regulations
21 issued, for penalties for noncompliance with the re-
22 quirements of such licenses or regulations, including
23 termination of license and civil penalties.

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AGENCY ACTIVITIES

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SEC. 403. Federal agencies are authorized and encouraged to engage in joint activities in satellite land remote sensing by forming consortia with private firms, in accordance with the provisions of section 401 of this title, if—

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(1) such activities will not compete with United States private sector activities;

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(2) such activities are appropriate to an agency's missions and activities; and

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(3) appropriated funds are available for that purpose.

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TERMINATION

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SEC. 404. The authority contained in this title shall terminate at the expiration of ten years after the date of enactment of this Act if no firm or consortium has been licensed and continues in operation under the provisions of this title.

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TITLE V—RESEARCH AND DEVELOPMENT

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CONTINUED FEDERAL RESEARCH AND DEVELOPMENT

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SEC. 501. The Administrator of the National Aeronautics and Space Administration, the Administrator of the National Oceanic and Atmospheric Administration, and the heads of other Federal agencies shall continue land remote sensing research and development, and are encouraged to conduct experimental space remote sensing programs (including applications programs) and to develop remote sensing

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1 technologies in support of their authorized missions, using
2 funds appropriated for those purposes. In carrying out such
3 programs, Federal agencies are encouraged to cooperate with
4 private industry.

5 **USE OF EXPERIMENTAL DATA**

6 **SEC. 502.** Data gathered in Federal experimental land
7 remote sensing programs may be used in related research and
8 development programs funded by the Federal Government,
9 including applications programs, but not for commercial uses
10 or in competition with private sector activities, except as per-
11 mitted by section 503 of this title.

12 **SALE OF EXPERIMENTAL DATA**

13 **SEC. 503.** Data gathered in Federal experimental land
14 remote sensing programs may be competitively sold en bloc
15 (consistent with national security interests and international
16 obligations of the United States) to any United States entity
17 which will market the data on a nondiscriminatory basis.

18 **TITLE VI—GENERAL PROVISIONS**

19 **OPEN SKIES**

20 **SEC. 601. (a)** Unenhanced land remote sensing satellite
21 data generated by any system operator under the provisions
22 of this Act shall be made available to all users on a nondis-
23 criminatory basis, in accordance with the requirements of this
24 Act.

1 (b) For the purposes of this title, the term "system oper-
2 ator" means a contractor under title II or III or a license
3 holder under title IV of this Act.

4 ARCHIVING OF DATA

5 SEC. 602. (a) In order to preserve many of the public
6 benefits of civil remote sensing from space, including long-
7 term global environmental monitoring, the Secretary shall
8 provide for long-term storage and maintenance of data, as
9 described in subsection (b) of this section, and for access to
10 such data.

11 (b)(1) The Secretary shall continue to provide storage,
12 maintenance, and access for unenhanced data from the Land-
13 sat system.

14 (2) The Secretary shall provide storage, maintenance,
15 and access for unenhanced data generated pursuant to title
16 III of this Act. The Secretary may obtain and examine such
17 data to determine whether such data have potential public
18 value, and to store and maintain data that are determined to
19 be of value.

20 (3) The Secretary may provide storage, maintenance,
21 and access for unenhanced data generated by license holders
22 under title IV of this Act if the Secretary finds that such data
23 have sufficient public value.

24 (c) All data generated by any system operator under
25 titles III or IV of this Act shall be made available to the

1 Secretary by the system operator in a form suitable for proc-
2 essing for data storage, maintenance, and access. The Secre-
3 tary may (as provided in advance by appropriations Acts) pay
4 to such system operator reasonable costs for reproduction and
5 transmittal of the data.

6 (d)(1) Copies of stored data may not be made available
7 from the archive except (A) to the system operator originally
8 providing the data, or (B) pursuant to paragraph (2) or (3) of
9 this subsection.

10 (2) Copies of stored data may be made available to per-
11 sons requesting such copies if the system operator who origi-
12 nally provided the data so authorizes the Secretary in writ-
13 ing.

14 (3) Copies of stored data may be made available to per-
15 sons requesting such copies without authorization of the
16 system operator after ten years after the date of the genera-
17 tion of such data.

18 (4) Persons or system operators requesting and receiv-
19 ing copies of such data from the archive shall pay to the
20 Secretary reasonable costs of reproduction and transmittal.

21 (5) Nothing in this subsection shall release the Secretary
22 from the Secretary's obligation to provide data storage, main-
23 tenance, and access.

24 (e) In carrying out the functions of this section, the Sec-
25 retary may use existing facilities or may contract with a pri-

1 vate sector party or parties for performance of such functions,
2 to the extent provided in advance by appropriations Acts.

3 **NONREPRODUCTION**

4 **SEC. 603.** Unprocessed land remote sensing data gener-
5 ated by any system operator under the provisions of this Act
6 may be sold on the condition that such data shall not be
7 reproduced and disseminated by the purchaser.

8 **REIMBURSEMENT FOR ASSISTANCE**

9 **SEC. 604.** The Administrator of the National Aeronau-
10 tics and Space Administration, the Secretary of Defense, and
11 the heads of other Federal agencies may provide assistance
12 to operators of remote sensing systems under the provisions
13 of this Act. Substantial assistance, such as launch services,
14 shall be reimbursed by the operator.

15 **RADIO FREQUENCY ALLOCATION**

16 **SEC. 605.** The Federal Communications Commission is
17 authorized and encouraged to allocate to any license holder
18 under title IV of this Act access to Government radio fre-
19 quencies and other civil radio frequencies appropriate for land
20 remote sensing systems in a timely manner, consistent with
21 the national interest.

22 **CONSULTATION**

23 **SEC. 606. (a)** The Secretary shall consult with the Sec-
24 retary of Defense on all matters under this Act affecting na-
25 tional security. The Secretary of Defense shall be responsible

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1 for identifying and notifying the Secretary of those national
2 security concerns of the United States which are relevant to
3 activities under this Act.

4 (b) The Secretary shall consult with the Secretary of
5 State on all international matters arising under this Act. The
6 Secretary of State shall be responsible for identifying and no-
7 tifying the Secretary of those international obligations and
8 commitments of the United States which are relevant to ac-
9 tivities under this Act.

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