

98<sup>TH</sup> CONGRESS  
2<sup>D</sup> SESSION

# S. 2292

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

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## 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

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## 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;

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

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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;

→ A.D.D.

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.

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 journeyment 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           (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 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-  
24 minate ten years after the date of the beginning of any con-  
25 tract 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;

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

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

10 → (c)(1) The Secretary, in consultation with other appro-  
11 priate Federal agencies, shall be responsible for protection of  
12 national security interests and adherence to international re-  
13 sponsibilities of the United States which are relevant to oper-  
14 ation of private land remote sensing satellite systems, includ-  
15 ing—

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

18 (B) liability for damage caused by space objects  
19 under registration or license by the Federal Govern-  
20 ment; and

21 (C) registration with appropriate international au-  
22 thorities of all objects launched into space by nongov-  
23 ernmental entities of the United States.

24 (2) In order to carry out paragraph (1) of this subsec-  
25 tion, 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.

14 (3)  ILLEGIB  
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.



1

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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10

(3) appropriated funds are available for that purpose.

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TERMINATION

13

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

18

CONTINUED FEDERAL RESEARCH AND DEVELOPMENT

19

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

*See H.R. Bill*

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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