

**Statement of**

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**before the  
Subcommittee on Science, Technology and Space  
Committee on Commerce, Science and Transportation**

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Mr. Chairman and Members of the Subcommittee:

I am pleased to have the opportunity to appear before the Subcommittee today to testify on S. 2297, the Land Remote Sensing Policy Act of 1992 and to discuss the status of our plans for implementing the Landsat program. NASA and DoD are moving ahead rapidly on plans to implement a Landsat program that meets our common goal of data continuity and the advancement of remote sensing technology. We believe we have defined an approach which will meet these goals, as well as assuring the continuation of the system in the future.

The Landsat program represents a valuable historical and on-going data base that will play an extremely important role in NASA's Mission to Planet Earth, and the broader U.S. Global Change Research Program. NASA anticipates that demand for Landsat data for global change research as well as for national security and other public and private purposes will increase greatly in coming years. We are strongly committed to ensuring that the Landsat program is successfully continued, that Landsat data will be made widely available, and that it will meet the needs of all users.

Because of the value of the program to a broad community of users, in February 1992 the President renewed the U.S. commitment to seek to maintain the continuity of Landsat-type data. The President's National Space Policy Directive 5 (NSPD 5) on Landsat Remote Sensing Strategy specifies that NASA and DoD will be responsible for developing and launching Landsat 7 and defining alternatives for maintaining data continuity beyond Landsat 7. NSPD 5 requires NASA and DoD to develop a Management Plan for the Landsat program. This plan has been completed, and has been reviewed by the National Space Council. I will discuss the key features of the plan and the status of our efforts to implement the program shortly. But first, I would like to address our position on S. 2297, the legislation offered by this committee to continue the Landsat program.

S. 2297 is an important piece of legislation that will help assure the future of the Landsat program. The bill provides NASA and the Department of Defense with the authority and the flexibility to proceed expeditiously with the Landsat program. Like its counterpart in the House of Representatives, H.R. 3614, the bill represents a constructive approach to continuation of the Landsat program. NASA and DoD have been in touch with the Subcommittee staff, and have provided input to reflect the Administration's approach to developing the Landsat program. As the legislation proceeds, we look forward to working with the Subcommittee to provide any information and assistance desired. It is important to note that while NASA and DoD are moving ahead to continue the Landsat program, how the program is structured and operated will depend in part upon amendments to the existing law governing land remote sensing, such as those proposed in S. 2297 and H.R. 3614. NASA and DoD will work with the subcommittee to assure that Congressional direction is reflected in the program's implementation.

In general, the Administration agrees with the approach toward Landsat program management outlined in S. 2297. There are, however, two areas where we would like some modification.

First, with regard to Landsat 6, we recommend that the legislation be less directive regarding the possible transfer of agency responsibilities and regarding changes in existing contracts for the operations and marketing of Landsat data. While the Administration will almost certainly seek some modifications in current contracts, these are properly achieved through negotiations. Mandating a solution in legislation could have significant fiscal or other undefined consequences.

Second, with regard to Landsat data, we recommend that the legislative provisions which would establish specific pricing and dissemination policies for unenhanced Landsat data be deleted. During the development of the Administration's Landsat Policy, we examined a number of data pricing and dissemination alternatives, and we found that the issues affecting the different user communities are very complex. In assessing these various data policy alternatives, our goals were: to seek to maintain data continuity for global change research, national security and other purposes; to assure that Federal data needs are satisfied; to foster U.S. leadership in remote sensing; and to encourage future commercial opportunities related to land remote sensing.

To assure that Federal government needs for the data are met, we concluded that price should not be a barrier to the use of Landsat 7 data for global change and environmental research, national security, and other Federal government purposes. Therefore, as a first principle, we are planning to provide data for global change research at the marginal cost of fulfilling a specific user request, consistent with the Administration's policy statements on Data Management for Global Change Research.

We believe this is necessary to achieve the Federal purposes for which the Landsat program is being conducted. For Landsats 1-6, NASA will seek to negotiate an agreement such that data from Landsats 1-6 are made available in a manner similar to the arrangements for data access and acquisition for Landsat 7.

For other users of Landsat data, we believe unenhanced Landsat data should be treated just like any other Federally produced data. Thus, we do not believe that Landsat data should be treated as a special case in legislation. Instead, we would like to see it dealt with through a broader regulatory process to be governed by the Office of Management and Budget's (OMB) Circular No. A-130 on Management of Federal Information Resources. This circular applies to all types of Federally produced data. On April 29, 1992, OMB published for comment a proposed revision to Circular No. A-130 in the Federal Register. While the public review process will require several months, the general principles are clear. The proposed A-130 would establish a standard that Federal agencies set user charges for Federal information products at a level sufficient to recover only the cost of dissemination. The Administration's policy statement on Data Management for Global Change Research was developed to be consistent with this concept, and will be reviewed to ensure that it reflects recommendations from the Circular No. A-130 public comment and review process. I am providing a copy of the Federal Register notice for the record. We believe that this proposed policy is consistent with the intent of the proposed legislation and will have the effect of expanding the use of Landsat-type data without making unenhanced Landsat data a unique or special case.

Now I would like to turn to the Landsat Management Plan, and to discuss the status of our efforts to date. The Management Plan outlines the goals of the program, and the respective roles and responsibilities of NASA and DoD. The Plan establishes the first principles that will guide the program through the operational lifetime of Landsat 7, with potential follow-on programs to be covered by separate agreements in the future. DoD, representing the national security community, and NASA, representing the U.S. Global Change Research Program and the civil/private Landsat use community in general, will divide the management responsibilities and costs for the program with approximate equality. NASA and DoD have almost completed requirements definition for Landsat 7. DoD will soon release the Request for Proposals for development of the Landsat 7 spacecraft. As part of this process, the NASA Office of Space Science and Applications is working to develop program and project plans to implement the NASA portion of the program.

Although NASA and DoD have agreed upon defined roles for each agency, we will be closely coordinating our activities. There will be NASA participation in the DoD project office, and vice-versa, to assure that the technical details for each part of the program are understood by all. Also, NASA and DoD will form a jointly chaired Landsat Coordinating Group which will coordinate the top-level program documentation such as

program plans, budgets and policies, as well as handling interagency matters and resolving issues as they arise.

The Landsat program will be structured to meet a set of basic goals. First, it will be designed to maintain data continuity, both in terms of maintaining a source of data by seeking to launch Landsat 7 five years after the launch of Landsat 6, and by ensuring that the data from Landsat 7 is consistent with data from Landsats 4,5, and 6. The system will continue to provide data which are sufficiently consistent in terms of acquisition geometry, calibration, coverage, and spectral characteristics with previous Landsat data to allow comparisons for global and regional change detection and characterization. Second, the system will be operated in such a way as to make data available to all U.S. civil, national security, and private sector users. Third, we will seek to expand use of Landsat data for global change research, national security and other purposes.

At a minimum, Landsat 7 will be functionally equivalent to Landsat 6, except that it will have a Tracking and Data Relay Satellite (TDRSS) communications capability. Additional improvements will be sought only if they do not increase risk to data continuity, and are attainable within agreed-to funding. DoD will have the lead responsibility for the acquisition and launch of the Landsat 7 satellite. NASA will provide appropriate participation in the responsible DoD project office as required. Beyond developing Landsat 7, DoD will have the lead, with assistance from NASA, the Department of Energy and other agencies, in developing a technology plan which evaluates the need and alternative means for implementing follow-on satellite systems and improvements beyond Landsat 7, including commercial alternatives.

NASA will have the lead responsibility for the development and operation of the Landsat ground system, including data processing, archiving (in cooperation with the Department of the Interior), distribution, user support and mission operations management. NASA will administer the program in coordination with the Mission to Planet Earth Program. DoD will provide appropriate participation in the responsible NASA project office as required. The ground system will be developed so as not to preclude private sector participation. NASA will be the lead agency responsible for Landsat operations and data management. NASA and DoD, through the NASA project office, will develop a collection scheduling system that assures access to data by all users in a timely manner. Users will be allowed to provide input into collection scheduling and access to data. Our baseline mode will be to acquire as much data as possible over cloud-free land areas for global change research. In all cases, Landsat data will continue to be unclassified.

NASA and DoD are each funding their respective responsibilities in the program. Thus, DoD is funding the procurement and launch of the Landsat 7 satellite, and NASA will fund satellite operations, and data processing, archiving, and distribution (including any ground hardware and facilities that are required). The two agencies'

total funding responsibility will be approximately equal as spread across the development and operational life of Landsat 7. Any improvements over a Landsat 6 functional equivalent capability for Landsat 7 will be funded by the sponsoring agency, if the required funding exceeds the baseline funding agreed to by the two agencies. If it is agreed that improvements benefit the interests of both agencies, they would be funded based upon a mutually acceptable sharing arrangement approved by the Deputy Secretary of Defense and the NASA Administrator.

In the area of international cooperation, NASA will have the lead responsibility, with DoD support, for evaluating opportunities for international cooperation and utilization of Landsat. NASA will also have the lead responsibility for arranging for the reception of Landsat data by foreign ground stations.

In conclusion, I would like to reiterate NASA's commitment to the Landsat program. NASA and DoD have developed a strong partnership, we have established our goals, and we are moving ahead to meet the Administration's goal of continuity of Landsat-type data. I believe that Landsat is an important contributor to global change research and that it makes a strong contribution to many of our national goals. Mr. Faga and I look forward to working together with other Federal agencies and the Congress to implement this program. Thank you.