E Appendix E: Landsat Remote Sensing Strategy

THE WHITE HOUSE
WASHINGTON
May 5, 1994

PRESIDENTIAL DECISION DIRECTIVE/NSTC-3

TO: The Vice President
The Secretary of Defense
The Secretary of Interior
The Secretary of Commerce
The Director, Office of Management and Budget
The Administrator, National Aeronautics and Space Administration
The Assistant to the President for National Security Affairs
The Assistant to the President for Science and Technology
The Assistant to the President for Economic Policy

SUBJECT: Landsat Remote Sensing Strategy

1. Introduction

This directive provides for continuance of the Landsat 7 program, assures continuity of Landsat-type and quality of data, and reduces the risk of a data gap.

The Landsat program has provided over 20 years of calibrated data to a broad user community including the agricultural community, global change researchers, state and local governments, commercial users, and the military. The Landsat 6 satellite which failed to reach orbit in 1993 was intended to replace the existing Landsat satellites 4 and 5, which were launched in 1982 and 1984. These satellites which are operating well beyond their three year design lives, represent the only source of a global calibrated high spatial resolution measurements of the Earth's surface that can be compared to previous data records.

In the Fall of 1993 the joint Department of Defense and National Aeronautics and Space Administration Landsat 7 program was being reevaluated due to severe budgetary constraints. This fact, coupled with the advanced age of Land sat satellites 4 and 5, resulted in a re-assessment of the Landsat program by representatives of the National Science and Technology Council. The objectives of the National Science

and Technology Council were to minimize the potential for a gap in the Landsat data record if Landsat satellites 4 and 5 should cease to operate, to reduce cost, and to reduce development risk. The rcsults of this re-assessment are identified below.

This document supersedes National Space Policy Directive #5, dated February 2, 1992, and directs implementation of the Landsat Program consistent with the intent of P. L. 102-555. the Land Remote Sensing Policy Act of 1992, and P. L. 103-221, the Emergency Supplemental Appropriations Act. The Administration will seek all legislative changes necessary to implement this PDD.

II. Policy Goals

A remote sensing capability, such as is currently being provided by Landsat satellites 4 and 5, benefits the civil, commercial, and national security interests of the United States and makes contributions to the private sector which are in the public interest. For these reasons, the United States Government will seek to maintain the continuity of Landsat-type data. The U.S. Government will:

(a) Provide unenhanced data which are sufficiently consistent in terms of acquisition geometry. coverage characteristics, and spectral characteristics with previous Landsat data to allow quantitative comparisons for change detection and characterization;

(b) Make govemment-owned Landsat data available to meet the needs of all users at no more that the cost of fulfilling user requests consistent with data policy goals of P.L. 102-555; and

(c) Promote and not preclude private sector commercial opportunities in Landsat-type remote sensing.

III. Landsat Strategy

a. The Landsat strategy is composed of the following elements:

(1) Ensuring that Landsat satellites 4 and 5 continue to provide data as long as they are technically capable of doing so.

(2) Acquiring a Landsat 7 satellite that maintains the continuity of Landsat-type data. minimizes development risk, minimizes cost, and achieves the most favorable launch schedule to mitigate the loss of Landsat 6.

(3) Maintaining an archive within the United States for existing and future Landsat-type data.

(4) Ensuring that unenhanced data from Landsat 7 are available to all users at no more than the cost of fulfilling user requests.

(5) Providing data for use in global change research in a manner consistent with the Global Change Research Policy Statements for Data Management.

(6) Considering alternatives for maintaining the continuity of data beyond Landsat *7.*

(7) Fostering the development of advanced remote sensing technologies, with the goal of reducing the cost and increasing the performance of future Landsat-type satellites to meet U.S. Government needs, and potentially, enabling substantially greater opportunities for commercialization.

b. These strategy elements will be implemented within the overall resource and policy guidance provided by the President.

IV. Implementing Guidelines

Affected agencies will identify funds necessary to implement the National Strategy for Landsat Remote Sensing within the overall resource and policy guidance provided by the President. {In order to effectuate the strategy enumerated herein, the Secretary of Commerce and the Secretary of the Interior are hereby designated as members of the Landsat Program Management in accordance with section 10l(b) of the Landsat Remote Sensing Policy Act of 1992, 15 U.S.C. 5602(6) and 5611 (b).} Specific agency responsibilities are provided below.

a. The Department of Commerce/NOAA will:

(1) In participation with other appropriate government agencies arrange for the continued operation of Landsat satellites 4 and 5 and the routine operation of future Landsat satellites after their placement in orbit.

(2) Seek better access to data collected at foreign ground stations for U.S. Government and private sector users of Landsat data.

(3) In cooperation with NASA, manage the development of and provide a share of the funding for the Landsat 7 ground system.

(4) Operate the Landsat 7 spacecraft and ground system in cooperation with the Department of the Interior.

(5) Seek to offset operations costs through use of access fees from foreign ground stations and/or the cost of fulfilling user requests.

(6) Aggregate future Federal requirements for civil operational land remote sensing data.

b. The National Aeronautics and Space Administration will:

(1) Ensure data continuity by the development and launch of a Landsat 7 satellite system which is at a minimum functionally equivalent to the Landsat 6 satellite in accordance with section 102, P. L. 102-555.

(2) In coordination with DOC and DOI, develop a Landsat 7 ground system compatible with the Landsat 7 spacecraft.

(3) In coordination with DOC, DOI, and DOD, revise the current Management plan to reflect the changes implemented through this directive, including programmatic, technical, schedule, and budget information.

(4) Implement the joint NASA/DOD transition plan to transfer the DOD Landsat 7 responsibilities to NASA.

(5) In coordination with other appropriate agencies of the U.S. Government develop a strategy for maintaining continuity of Landsat-type data beyond Landsat 7.

(6) Conduct a coordinated technology demonstration program with other appropriate agencies to improve the performance and reduce the cost for future unclassified earth remote sensing systems.

c. The Department of Defense will implement the joint NASA/DOD transition plan to transfer the DOD Landsat 7 responsibilities to NASA.

d. The Department of the Interior will continue to maintain a national archive of existing and future Landsat-type remote sensing data within the United States and make such data available to U.S. Government and other users.

e. Affected agencies will identify the funding, and funding transfers for FY 1994, required to implement this strategy that are within their approved fiscal year 1994 budgets and subsequent budget requests.

V. Reporting Requirements

U.S. Government agencies affected by the strategy guidelines are directed to report no later that 30 days following the issuance of this directive, to the National Science and Technology Council on their implementation. The agencies will address management and funding responsibilities, government and contractor operations, data management, archiving, and dissemination, necessary changes to P. L. 102-555 and commercial considerations associated with the Landsat program.