

United States Senate

WASHINGTON, DC 20510

June 14, 2007

Senator Robert C. Byrd
Chairman
Committee on Appropriations
Washington, DC 20510

Senator Thad Cochran
Ranking Member
Committee on Appropriations
Washington, DC 20510

Senator Barbara Mikulski
Chairwoman
Subcommittee on Commerce,
Justice, Science & Related Agencies

Senator Richard Shelby
Ranking Member
Subcommittee on Commerce,
Justice, Science & Related Agencies

Dear Chairman Byrd, Chairwoman Mikulski, Senator Cochran, and Senator Shelby:

Water is a precious and scarce natural resource. The prolonged drought over large portions of the United States, particularly the West has had a range of adverse effects: record wildfires, crop failure, threats to endangered wildlife and municipal water shortages.

Recognizing this, it is increasingly critical that we provide the resources necessary to gather the data required to make sound decisions related to our present and future water use. The economic costs of drought can be mitigated through improvements in forecasting accuracy to help detect drought farther in advance, enhance forecast accuracy, and more precisely indicate location, intensity, and duration.

One such invaluable data source that federal and state agencies have come to rely on is the Landsat Program, a series of satellite missions jointly managed by NASA and the U.S. Geological Survey. Since 1972, Landsat satellites have collected information about Earth from space, taking specialized digital photographs of the continents and surrounding coastal regions. This has enabled scientists to evaluate the dynamic changes caused by both natural processes and human practices, including drought.

The thermal infrared (TIR) data provided by Landsat 5 and Landsat 7 is used to calculate evapotranspiration and water use on a field-by-field basis, as well as to monitor related land uses and changes over large areas. However, these satellites are failing, having served well beyond their designed useful life. Landsat 5 is 23-years old and Landsat 7 has malfunctioned, making it of limited value for water resource management needs. NASA is scheduled to deploy Landsat 8, a "free-flyer" spacecraft, in 2011. The President's FY 2008 request for funding for NASA's Earth Systematic Missions Program-Landsat Data Continuity Mission (LDCM), calls for \$160.2 million to complete the instrument preliminary design review and award contracts for building the spacecraft.

However, NASA's request for LDCM and an Operational Land Imager (OLI) **does not** include funding for a thermal infrared sensor. The total additional cost for such a sensor, with capabilities similar to Landsat 5 and Landsat 7, is estimated at around \$90 million dollars. We respectfully request that the Appropriations Committee add ~~\$35 million~~ to the President's FY2008 LDCM request and direct NASA to immediately take the necessary steps to ensure a thermal sensor is included on Landsat 8 to continue providing this vital information for current and future natural resources management.

No other federal program can provide this information, nor is there any comparable public or private source, locally or internationally. If we fail to act now, we will lose this important tool for the long-term future. Even now, it is likely NASA may need to build the thermal data sensor "in-house," so as not to delay the scheduled 2011 launch.

As the drought continues and we struggle to predict and adapt to future water and land use changes, this thermal information becomes increasingly critical. It is vital for evaluating seasonal surface and ground water use, planning water budgets, managing irrigation practices, administering water rights, overseeing compliance with USDA conservation-related contracts, studying impacts related to converting agricultural lands to urban uses, evaluating water needs of fish and wildlife, including endangered species, and ensuring that water is used in compliance with state and federal law, interstate compacts, and international treaties.

Therefore, we urgently ask that you include \$35 million in FY2008 under NASA's Landsat Data Continuity Mission for the addition of a thermal sensor on Landsat 8. We cannot afford to lose this tool and the critical information it provides for water resource and infrastructure planning.

Sincerely,



Ken Salazar
United States Senator



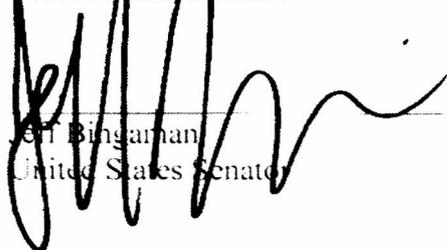
Mike Crapo
United States Senator



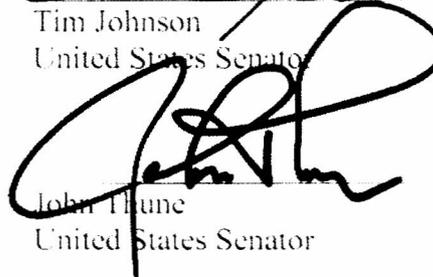
Max Baucus
United States Senator



Tim Johnson
United States Senator



Jeff Bingaman
United States Senator



John Hune
United States Senator

Ron Wyden

Ron Wyden
United States Senator

Gordon Smith

Gordon Smith
United States Senator

Pat Roberts

Pat Roberts
United States Senator



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May 2, 2007

The Honorable Barbara Mikulski, Chair
Subcommittee on Commerce, Justice, State, and Related Agencies
Committee on Appropriations
U.S. Senate
144 Dirksen SOB
Washington, DC 20510

The Honorable Ted Stevens, Ranking Member
Subcommittee on Commerce, Justice, State, and Related Agencies
Committee on Appropriations
U.S. Senate
144 Dirksen SOB
Washington, DC 20510

Dear Chair Mikulski and Senator Stevens:

As the Subcommittee considers the fiscal year 2008 appropriations bill for Commerce, Justice and Science, the Western Governors' Association urges you to continue your past support for the following key programs that are of vital importance to citizens in western states.

The matter of illegal immigration remains a great concern to the western states. We are pleased that the President's budget proposes an increase for the Customs and Border Enforcement agency. We are also pleased that the President's proposed FY 08 budget includes \$1 billion to physically secure and control the southwest border; and that the agency will hire 3,000 border patrol agents and improve processing at points of entry. But we ask that interior efforts, like the State Criminal Alien Assistance Program, not be neglected.

We ask for your continued assistance in the fight against methamphetamine abuse. It is important that our state and local law enforcement agencies receive help from the Drug Enforcement Agency in cleaning-up these dangerous and toxic meth labs.

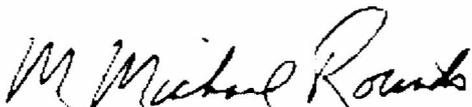
We also seek your support for improved drought monitoring and prediction. Water supplies in the West are strained by many competing demands. Droughts only further compound these demands. Last year, Congress authorized the National Integrated Drought Information System (NIDIS). In its budget, the Administration has included funding for NIDIS to be implemented. We support this funding proposal wholeheartedly and ask that it be included in the FY 08 appropriations for NOAA.

The Honorable Barbara Mikulski
The Honorable Ted Stevens
May 2, 2007
Page 2

On a related matter, NASA's budget request for the Landsat Data Continuity Mission (LDCM), under its Earth Systematic Missions Program, failed to include funding for a thermal infrared (TIR) sensor on Landsat 8, scheduled to be launched in 2011. This is a serious omission. Landsat TIR data is now used in ten western states to remotely measure and calculate water consumption by crops and natural vegetation, as well as administer existing water rights and interstate compacts. The opportunities to improve water management are only beginning to be realized. Until such time as an alternative technology to provide similar information is available, Landsat TIR data will continue to be vital for future decision-making at federal, state, local and international levels. We urge you to include funding for it in FY 2008.

In closing, we hope the Subcommittee will continue to invest in these priorities that provide so much benefit to the West.

Sincerely,


M. Michael Rounds
Governor of South Dakota
Chairman


Dave Freudenthal
Governor of Wyoming
Vice Chairman



WESTERN GOVERNORS' ASSOCIATION

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May 2, 2007

The Honorable Alan Mollohan, Chairman
Subcommittee on Commerce, Justice, Science, and Related Agencies
Committee on Appropriations
U.S. House of Representatives
H-310 Capitol
Washington, DC 20515

The Honorable Rodney Frelinghuysen, Ranking Member
Subcommittee on Commerce, Justice, Science, and Related Agencies
Committee on Appropriations
U.S. House of Representatives
H-310 Capitol
Washington, DC 20515

Dear Chairman Mollohan and Representative Frelinghuysen:

As the Subcommittee considers the fiscal year 2008 appropriations bill for Commerce, Justice and Science, the Western Governors' Association urges you to continue your past support for the following key programs that are of vital importance to citizens in western states.

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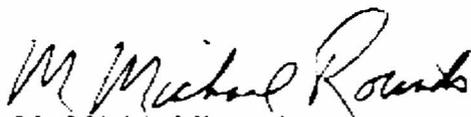
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In closing, we hope the Subcommittee will continue to invest in these priorities that provide so much benefit to the West.

Sincerely,


M. Michael Rounds
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Chairman


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307 Dirksen

June M
Thormodsgard/GEOG/
USGS/DOI

07/21/07 12:05 PM

To John L Dwyer/NMD/CONT/USGS/DOI, Thomas R
Loveland/GEOG/USGS/DOI@USGS, Bruce K
Quirk/NMD/USGS/DOI, Jennifer A

cc

bcc

Subject Fw: Support for Landsat Thermal Data

I presume you have seen this, but just in case.....

----- Forwarded by June M Thormodsgard/GEOG/USGS/DOI on 07/21/2007 11:04 AM -----

"Morse, Tony"
<Tony.Morse@idwr.ida
ho.gov>

07/19/2007 11:12 AM

To "Morse, Tony" <Tony.Morse@idwr.idaho.gov>

cc

Subject Support for Landsat Thermal Data

Ladies and Gentlemen:

II have attached three recent letters about thermal data on the Landsat Data Continuity Mission. These letters mark significant progress in our efforts to preserve thermal data in the Landsat program. The signs are encouraging, but we are not there yet.

The Western Governors' Association sent two letters to the appropriations committees in the U.S. Senate and House urging support for key programs. And nine U.S. Senators sent a letter to the Senate Appropriations Committee. The letters specifically urge the Committees to include in NASA's FY08 budget \$35 million of the total \$90 million needed for a thermal sensor on the LDCM.

In spite of our progress, we can't afford to neglect the issue until Landsat 8 is actually launched with a thermal instrument on board.

Now is the time for you to email Dr. Gene Whitney at the White House Office of Science and Technology Policy (gwhitney@ostp.eop.gov), urging him to augment NASA's FY08 budget with the \$35 million needed to assure that a thermal sensor will fly on the LDCM. Please copy the email to Ms Amy Kaminski at the Office of Management and Budget (akaminski@omb.eop.gov), Dr. Michael Griffin, the NASA Administrator (Michael.D.Griffin@nasa.gov), and you U.S. Senators. I have attached a list of email addresses for legislative assistants to U.S. Senators.

The Landsat community needs to take advantage of the opening given us by these letters. All of you have stood up before in support of a thermal sensor on the next Landsat. Please do so again if you are able. We are not out of the woods.

Thanks for all your efforts.

Sincerely,

Tony Morse

Geospatial Technology Manager
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