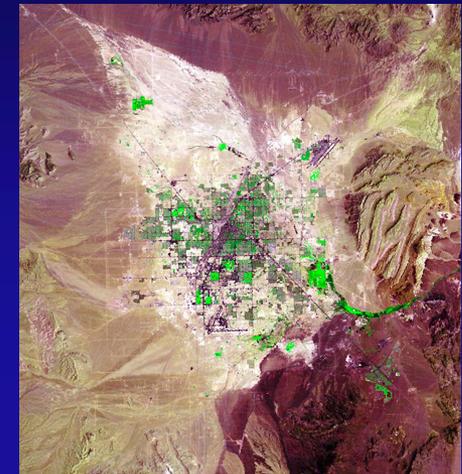


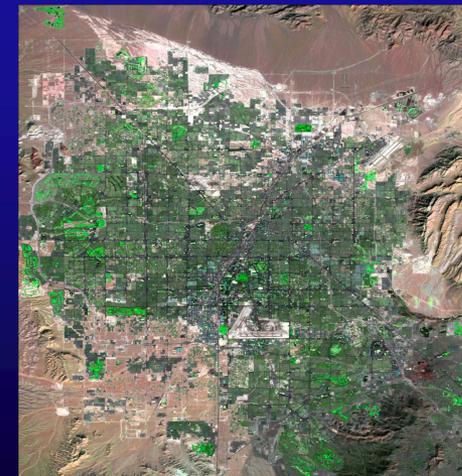
# The National Land Imaging Program

“Ensuring Landsat Operational Data Continuity in the 21<sup>st</sup> Century”

Bruce K. Quirk  
Program Coordinator  
Land Remote Sensing Program  
U.S. Geological Survey



Las Vegas - May 1973



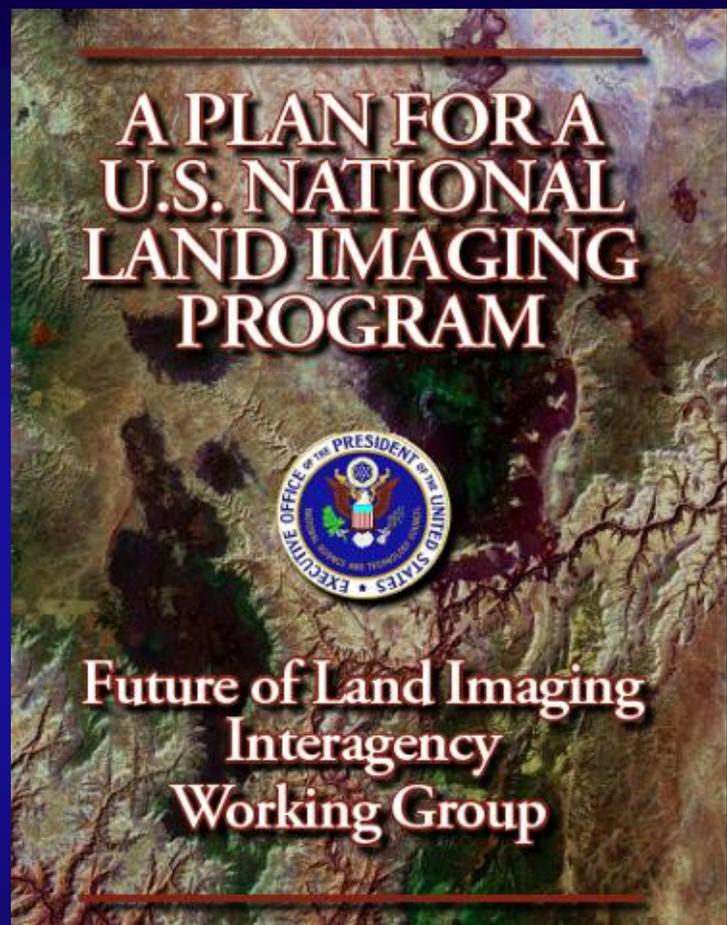
Las Vegas - February 2006

# Topics

- **History/Background**
- **Status and Plans**
- **Landsat Science Team Support**



# National Land Imaging Program

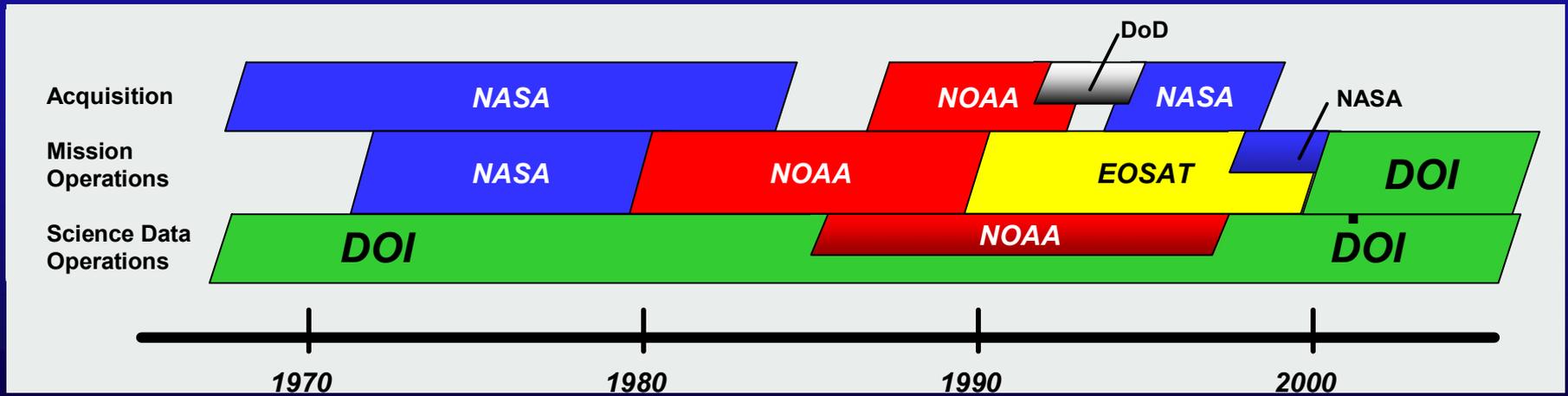


- In December 2005, the President's Science Advisor stated:
  - "It remains the goal of the U.S. Government to transition the Landsat program from a series of independently planned missions to a sustained operational program..."
- Future of Land Imaging Interagency Working Group (FLI IWG) guidance.
  - Why does the U.S. need moderate-resolution land imagery?
  - What are the key societal benefits of moderate resolution land imaging?
  - What are the options for acquiring these capabilities or data?
  - How should U.S. land imaging be managed and governed?



# The Issue

- No long-term U.S. commitment for providing Landsat-like data.
- No U.S. commercial alternative.
- No resources to sustain an operational land imaging program for the U.S.



# FLI IWG Recommendations

- **Recommendation #1:** The U.S. must commit to continue the collection of moderate-resolution land imagery.
- **Recommendation #2:** The United States should establish and maintain a core operational capability to collect moderate-resolution land imagery through the procurement and launch of a series of U.S.-owned satellites.
- **Recommendation #3:** The United States should establish the National Land Imaging Program, hosted and managed by the Department of the Interior, to meet U.S. civil land imaging needs.



# DOI Secretary Kempthorne @ GEO Summit



U.S. address to the gathered nations on November 30, 2007.



Secretary Kempthorne and USGS Director, Mark Myers.

- “The global partnership we call GEO is a mechanism for each of us to provide what is needed by the others.”
- “And under US GEO leadership, this year the United States committed itself to continuing to provide Landsat-type imagery of the globe for the benefit of the US and the world.”
- “We (the United States) pledge to work with all nations to gather and openly distribute vital data about our planet.”
- “The United States reaffirms its commitment to the Group on Earth Observations. We are committed to the advancement of Earth observation to address global economic, environmental and social issues.”

# DOI Responsibilities

- ***NLIP Vision:***
  - To serve the Nation by acquiring and providing operational land imaging capabilities and applications to support U.S. economic, environmental, foreign policy, and security interests.
- **The Department will:**
  - **Oversee a Federal Land Imaging Council and Land Imaging Advisory Committee;**
  - **Manage U.S. Land Imaging requirements (optical, SAR, etc.);**
  - **Acquire U.S. Land Imaging systems and data;**
  - **Develop new applications for Federal, State, and local government;**
  - **Investigate and develop new remote sensing technology;**
  - **Ensure data delivery to universities and scientists, NGOs, and international organizations; and**
  - **Coordinate acquisition and data distribution plans with U.S. industry, foreign governments, and foreign commercial firms.**
- **Above all else, “Ensure availability, access, and ease of use of land imaging data for the Nation”.**

# Landsat Science Team Involvement

- Continue to “promote” on Landsat (5, 7 and LDCM).
- Continue support of LDCM - Landsat 8.
- Provide specific input on NLIP by:
  - Participating in the Land Imaging Advisory Committee;
  - Reviewing strategic plans;
  - Provide guidance on Landsat 9 requirements definition process;
  - Defining science component of NLIP;
  - Promoting NLIP concepts; and
  - Develop new applications for Federal, State, and local government.

# Questions?

<http://www.landimaging.gov/>

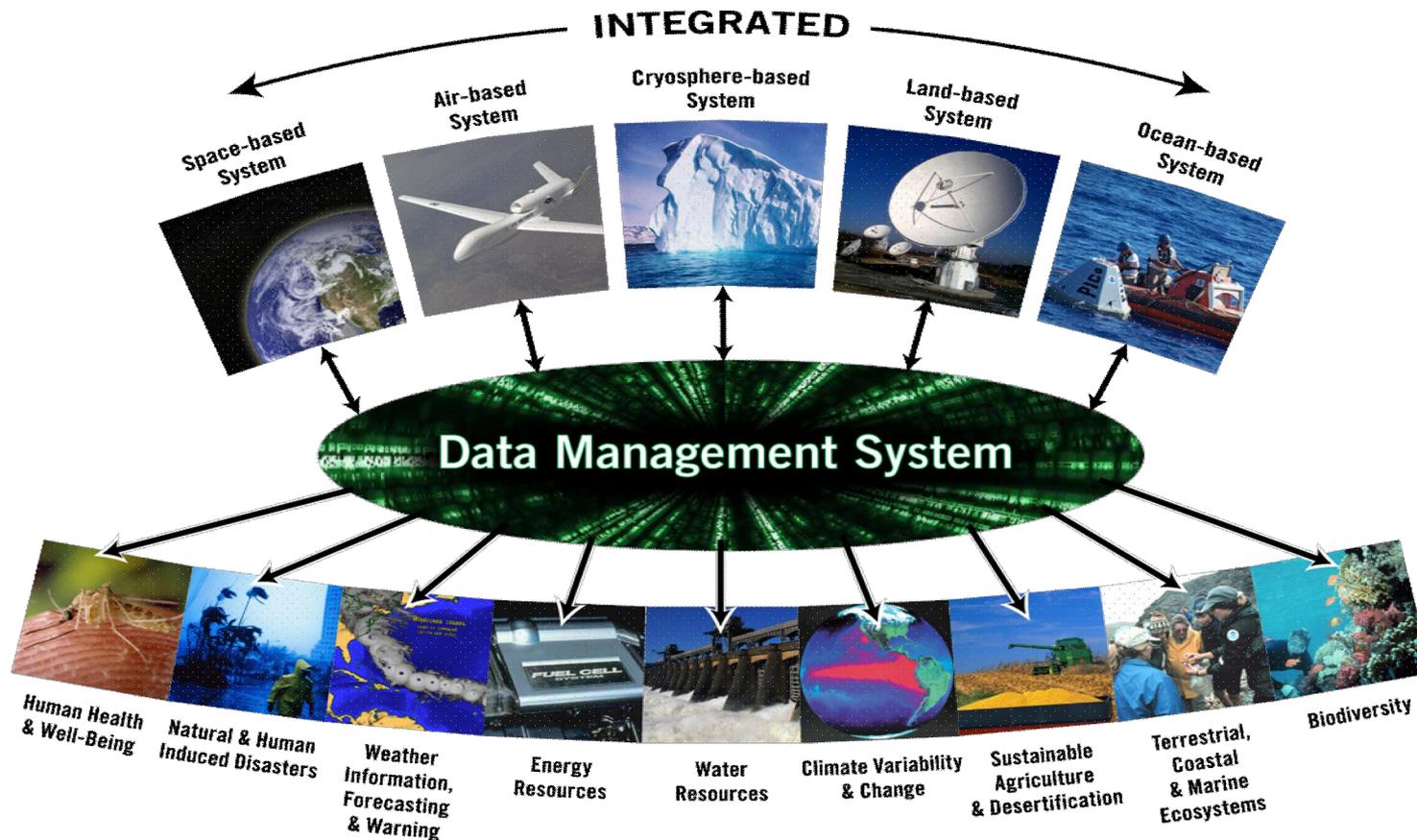
<http://www.ostp.gov/html/FLI-IWG%20report%20Print-ready%20low-res.pdf>

<http://remotesensing.usgs.gov/>

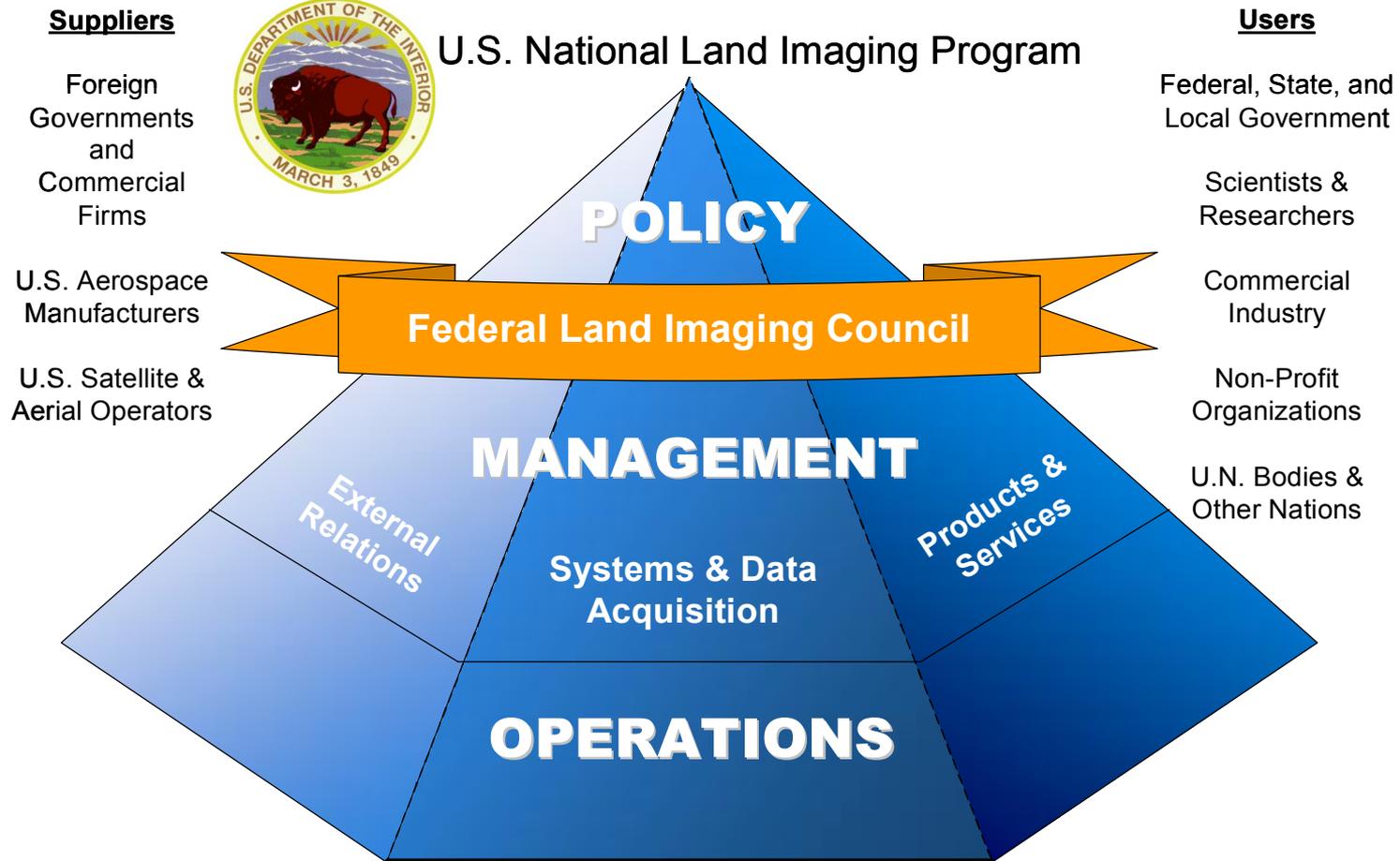


# A National Land Imaging Program supports GEO Societal Benefit Areas

Earthquakes ★ Floods ★ Hurricanes ★ Landslides ★ Tsunamis ★ Volcanoes ★ Wildfires



# National Land Imaging Program



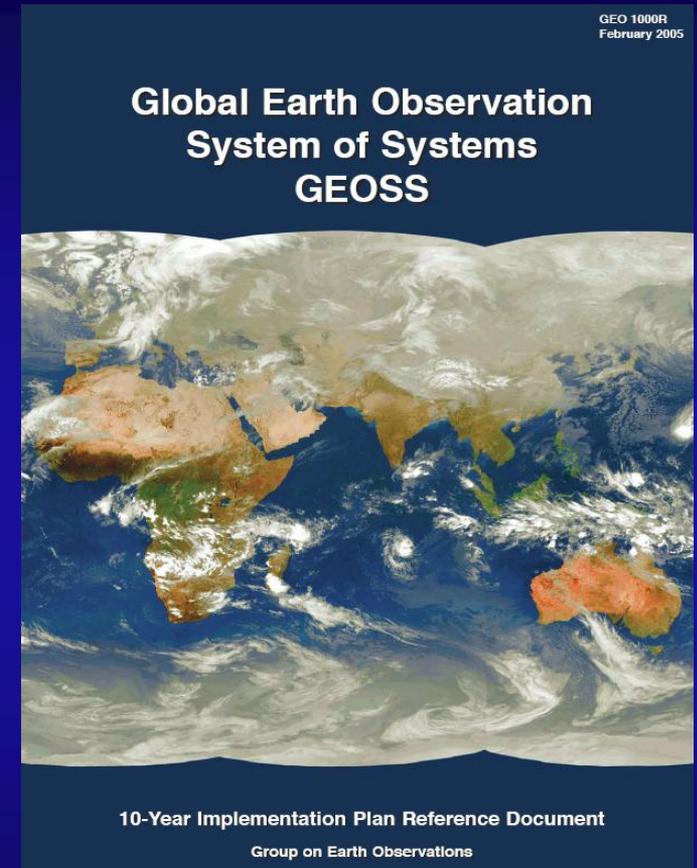
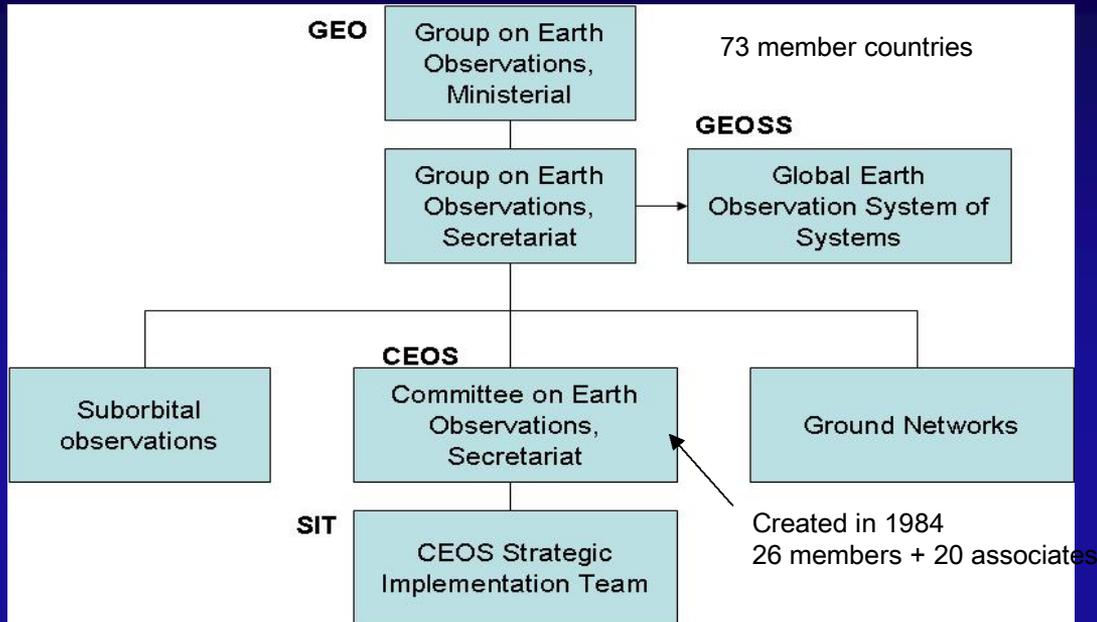
The Federal Land Imaging Council will provide guidance and recommendations.  
A Committee of non-Federal land imagery users and suppliers will advise the National Program.

# Framework for Collaboration under the NLIP Concept

- **NLIP will ensure Landsat Data Continuity**
  - Systematic, repetitive coverage of the global land surface
  - Synoptic observations of broad areas
  - Multispectral observations
  - Moderate spatial resolution (30 meters or better)
  - Accurate radiometry, geolocation, and cartographic registration
- **By law, the US will continue to maintain an archive of US Land Imaging Satellite Holdings**
- **The US will acquire Government-owned Operational Land Imaging satellites and ground systems required to meet the “core operational capability” needed to meet critical US needs**
- **DOI/USGS will expand its use of agreements with US commercial and non-US government and commercial programs to acquire land imagery**



# CEOS Constellations to meet GEO objectives



- **CEOS constellation studies to support technical and scientific cooperation and collaboration among space agencies that meet GEO objectives and support national priorities.**
  - **Atmospheric Composition (NASA)**
  - **Precipitation (NASA/JAXA)**
  - **Ocean Surface Topography (NOAA/EUMETSAT)**
  - **Land Surface Imaging (USGS)**