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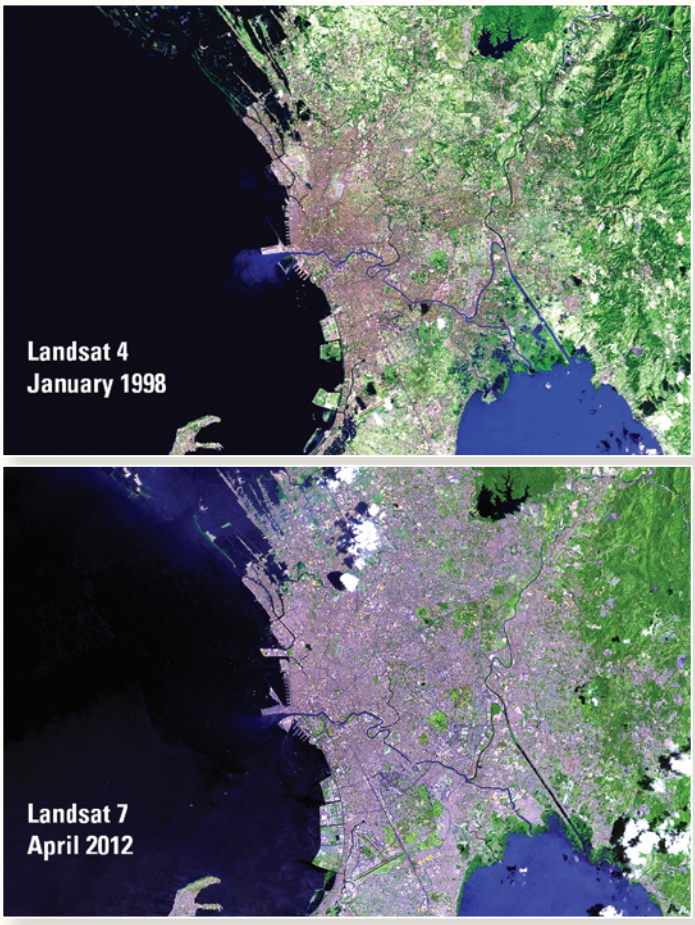
National Satellite Land Remote Sensing Data Archive

Background

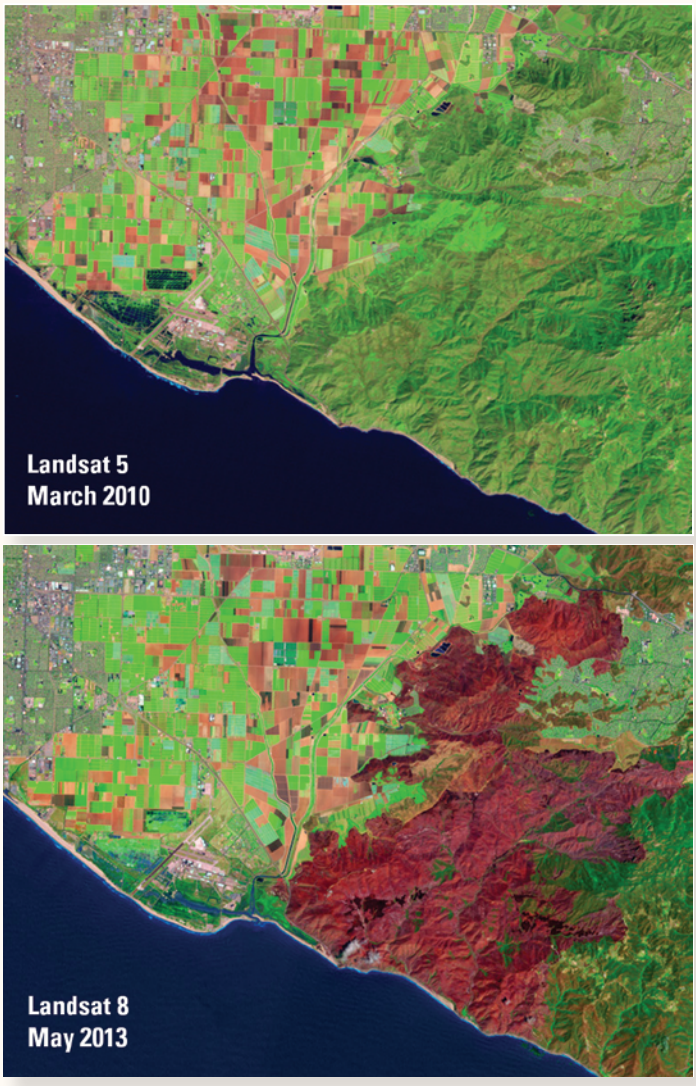
The National Satellite Land Remote Sensing Data Archive (NSLRSDA) resides at the U.S. Geological Survey's (USGS) Earth Resources Observation and Science (EROS) Center. Through the Land Remote Sensing Policy Act of 1992 (refer to *http://thomas.loc.gov/cgi-bin/query/z?c102:H.R.6133.ENR:*), the U.S. Congress directed the Department of the Interior (DOI) to establish a permanent Government archive containing satellite remote sensing data of the Earth's land surface and to make the data easily accessible and readily available. This unique DOI/USGS archive provides a comprehensive, permanent, and impartial observational record of the planet's land surface obtained throughout more than five decades of satellite remote sensing.

Satellite-derived data and information products are primary sources used to detect and understand changes such as deforestation, desertification, agricultural crop vigor, water quality, invasive plant species, and certain natural hazards such as flood extent and wildfire scars. Comparisons of satellite images through time are a powerful tool for studying these phenomena.

Beyond the usefulness of determining land use or land cover change on a global scale, the NSLRSDA holdings enable scientists to study landscape variations, at local or regional scales, identify potential energy and mineral resource areas, help assess environmental quality degradation, and contribute to responsible development of our Nation's natural resources.



These satellite images reveal urban expansion in and around the Philippine capital of Manila.



These before-and-after Landsat images reveal the scorched footprint of the May 2013 Camarillo Springs Fire in southern California.

Contents

NSLRSDA contains film and digital records from the 1960s to the present day. Table 1 highlights some of the collections in the archive:

NSLRSDA collections provide unique observations of our Nation or the globe from different periods of time, through various cameras or sensors, and at ground resolutions ranging from less than 1 to 1,000 meters.

The archives at EROS holds millions of aerial photographs and satellite images. These data are stored on film and electronic media and preserved in environmental controlled archive space.

Table 1. The National Satellite Land Remote Sensing Data Archive (NSLRSDA) collection details.

Collection name	Time span	Ground resolution[1]
Declassification I	1960–1972	2–153 meters
Declassification II	1963–1980	0.6–10 meters
Large Format Camera	1984	10–15 meters
Landsat Multispectral Scanner	1972–1992	80 meters
Landsat Thematic Mapper	1982–2012	30 meters
Landsat Enhanced Thematic Mapper Plus	1999–still operating	15 or 30 meters
Landsat Operational Land Imager	2013–still operating	15 or 30 meters
Landsat Thermal Infrared Sensor	2013–Still operating	100 meters
Landsat Orthoimagery	1972–2003	15–80 meters
Global Land Surveys	1972–2011	15–80 meters
Systeme Pour l'Observation de la Terre	1986–1998	10 or 20 meters
Advanced Very High Resolution Radiometer	1980–still operating	1,000 meters
Shuttle Radar Topography Mission	2002	30 meters
GeoEye OrbView–3	2003–2007	1 or 4 meters

[1] One meter is approximately 39.4 inches.

This 1967 image showing Tiananmen Square in the city of Beijing, China, is part of a collection of declassified military intelligence satellite imagery.

How to Obtain the Data

There are multiple ways to learn more about the NSLRSDA holdings and how to obtain the data. The primary NSLRSDA data access system, called Earth Explorer (*http://earthexplorer.usgs.gov*), provides collection descriptions, a map-based query function, browse images, and means to download data at no charge.

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