

50 YEARS AND COUNTING

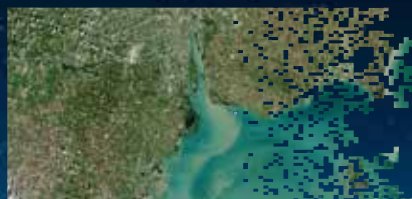
Peerless History, Unparalleled Value, Boundless Future

The Landsat Program changed the world, just by looking at it. The first Landsat marked the beginning of a land remote sensing era that redefined the way we map and manage our landscapes, track the health of crops, prepare for and respond to disasters, and much more. Its 50-year record is the baseline history of Earth surface conditions; its unmatched data quality sets the standard to which all other Earth observing satellites—public and private alike—aspire.

Landsat is a critical public resource. Its annual economic benefit to the United States is more than twice the cost of a single satellite (Straub and others, 2019). Agricultural producers, water resource managers, firefighters, urban planners and others lean on Landsat.

Celebrating

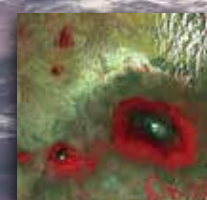
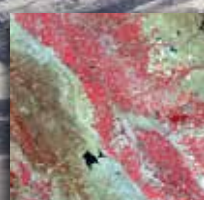
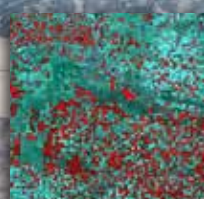
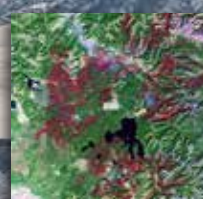
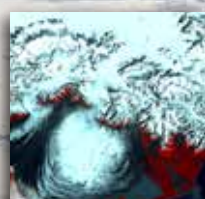
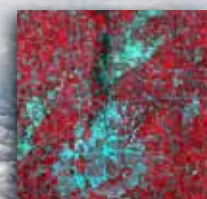
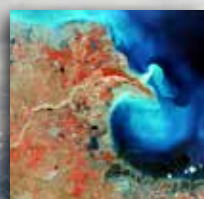
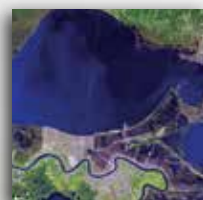
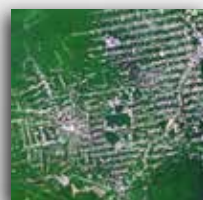
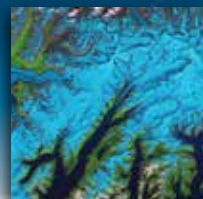
50
YEARS
Landsat
1972-2022



The **future** of Landsat?

More and better. More frequent observations, improved sensors and details of change, higher-resolution imagery, commercial and international data partnerships to augment its scientific data record—all while preserving the continuity of a satellite record of unmatched quality.

For Landsat, 50 years is **only the beginning.**



Landsat: 50 Years and Counting

Peerless History, Unparalleled Value, Boundless Future

Landsat 1 marked the beginning of a land remote sensing era that redefined the way we map and manage our landscapes, track crop health, prepare for and respond to disasters, and more. Landsat's 50-year record serves as the baseline history of Earth surface conditions; its unmatched data quality sets the standard to which all other Earth observing satellites—public and private alike—aspire.

Landsat is a critical public resource: Its annual economic benefit to the United States is more than twice the cost of a single satellite (Straub and others, 2019). Agricultural producers, water resource managers, fire fighters, urban planners and others lean on Landsat.

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50
YEARS
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1970s

This first image of Dallas-Fort Worth, TX, was captured by Landsat 1, July 25, 1972

Garden City, KS, August 16, 1972

Peru avalanche, October 16, 1973

San Joaquin Valley, CA, August 11, 1972

A worldwide crop failure in 1972 sparked the first wide-scale, satellite-based crop monitoring program. By the mid-1970s, scientists were using Landsat to predict crop yields over large areas from above for the first time. Landsat has been a crop health resource ever since.

Kilimanjaro, January 24, 1976

1980s

Mount St. Helens, WA, May 22, 1983

Hubbard Glacier, AK, August 7, 1985

Yellowstone National Park fires, WY, October 10, 1988

The 1980 eruption of Mount St. Helens and the 1986 nuclear plant disaster at Chernobyl, Ukraine showed early evidence of Landsat's ability to detect and monitor disasters. Landsat remains key to monitoring the impacts of wildfires, oil spills, tsunamis, hurricanes, and more. Landsat's open data policy and technology advances made it possible to study the Earth's recorded history in new and exciting ways.

Chernobyl, Ukraine, April 29, 1986

Shanghai, China, expansion, August 11, 1989

1990s

Phoenix, AZ, July 8, 1991

Land cover—cropland, wetlands, pasture, urban, etc.—affects ecosystem health, disaster risk and human and wildlife health. In the 1990s, work began on the first Landsat-based land cover maps of the United States. Such maps have become foundational to land change science.

Imperial Valley, CA, June 30, 1992

Hailstorm damage near Sioux Falls, SD, July 16, 1997

Mount Pinatubo eruption, Philippines, January 26, 1992

Huang He Delta, China, October 7, 1999

2000s

Landsat records World Trade Center attack, September 12, 2001

Rondonia, Brazil, deforestation, September 19, 2001

When Brazil launched an ambitious plan to reduce deforestation in 2004, using Landsat imagery to track its progress, its forest losses dropped dramatically throughout the decade. Today, Landsat is the backbone of incentive programs that compensate countries for reducing deforestation-related carbon emissions.

Lake Chad, Africa, May 2003

Aftermath of Hurricane Katrina, New Orleans, LA, September 7, 2005

Las Vegas, NV, July 18, 2007

2010s

Aral Sea, Central Asia, June-July 2013

In the 2010s, Landsat helped scientists map 30 years of water use efficiency for parts of the United States. This information provided crucial decision support to authorities in regions with limited water resources.

Chesapeake Bay, October-November 2014

Dubai, UAE, June 1, 2019

Columbia Glacier, AK, June 21, 2019

2020s

The Betsiboka River in northern Madagascar, December 7, 2021

Karymsky volcano, Russia, April 20, 2022

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Lake Erie algal bloom, September 26, 2016