

\$3.45B/YR LANDSAT DATA VALUE

The USGS EROS Landsat Ground Station Archive provides access to 48 years of Landsat imagery to data users around the world.

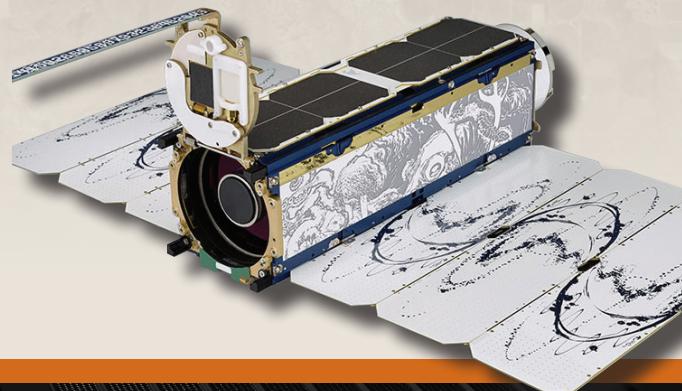
Landsat's economic value is more than \$3.45 Billion annually.

ENABLES TECHNOLOGY – FOUNDATION FOR PRODUCING COMMERCIAL EARTH IMAGERY

Commercial Space Ventures Landsat's rich and trusted record provides the foundation upon which "New Space" companies can build their businesses.

"Without Landsat it would be essentially impossible to get good Ground Control Point locations from other sources."

Frank Warmerdam, Planet, Landsat and the Private Tech Sector: Direct and Complementary Uses of Imagery

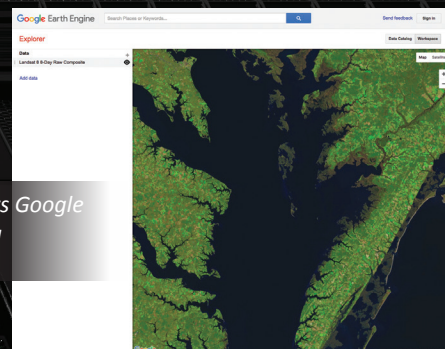


Cloud Computing The massive size, duration, and quality of the Landsat archive helps industry develop exciting, new techniques in cloud computing and data analytics.

"Because of Landsat's global purview and long history, it has become a reference point for all Earth observation work and is considered the gold standard of natural resource satellite imagery."

Jed Sundwall, Amazon Web Services Official Blog

Landsat Powers Google Earth Mapping



CREATES INDUSTRY GROWTH

Geospatial Industry The length, accuracy, and availability of the Landsat archive makes it ideal for industry to develop tools with new data sources.

ESRI, MapBox, MathWorks, and EOS Data Analytics have each developed new tools and techniques to bring value from the Landsat data held in the Amazon Cloud.

Agriculture Landsat aids agriculture at all levels: from farmers determining efficient fertilizer and water application to cereal makers and hedge fund firms.

Energy (wind, oil, gas) Landsat data have long been used to explore for minerals, fossil fuels, and other natural resources. Today it's also being used to determine the most efficient sites for wind farms, ethanol production, and growing energy industries.

Insurance/Reinsurance Landsat data helps fight crop insurance fraud. As an unbiased data source, insurance companies use Landsat more than all other satellites combined.

"Landsat has played a major role in shifting the tide of fraud cases... a conservative estimate would be that Landsat saves the U.S. government \$100 million per year."

*Dr. John Brown,
Agricultural Investigation and Research
Corporation, Columbia, MO*





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LEVERAGING NATURAL RESOURCES

Agriculture

Farmers use free Landsat data to monitor crop health and pinpoint signs of stress.

Forecasting crop production, monitoring drought

Managing water use at the individual field level

Forest Management

Prevention of Fires, Loss of Life, and Property

The National Forest Service uses Landsat as its eyes in the skies because ground searches are not economically feasible.

Landsat's 8 day revisit cycle uncovers destructive pest and disease outbreaks early.

Mapping Water Use

Evaluates aquifer levels, quantifies net ground water pumping

Used to resolve disputes over water rights and allocations

Landsat water-use maps detail consumption at the individual field level.

Energy & Minerals

Detects natural resources like oil, natural gas, and mineral deposits

Supports improved biofuels production

Monitors surface mines and reclamation efforts

"We'd have to walk our entire 1,200-plus acres on a regular basis to see the same things we can see by just downloading satellite images."

*Noreen Thomas of
Moorhead, MN*

"Including a thermal imaging instrument on the next Landsat vehicle is critical to the continued use of this information in western states for monitoring and measuring agricultural and other outdoor water uses, ... and administering state water rights, interstate compacts, and surface and ground water budgets."

Western Governors Council

PUBLIC BENEFITS – RAPID RESPONSE SAVES LIVES, PROPERTY, AND NATURAL RESOURCES

Emergency Response

Fires & Floods: *Assessing severity and extent of fires and floods for planning and recovery efforts*

Hurricanes & Tornadoes: *Captures magnitude of hurricanes and tornadoes*

Fire Response

Burn-severity maps enable pinpoint post-fire activities and prevent further losses.

Infrared data enables burn-mapping products in less than 24 hours after imaging.

LANDFIRE mapping analyzes landscapes to forecast wildland fire giving responders time to provide early warnings.

Drought Monitoring/Food Security

Landsat data enables food assistance agencies to prioritize where food and water are needed most.

Scientists use Landsat data to accurately predict water availability and usage in drought-stricken regions to determine the health and density of vegetation.

