

Landsat Archive Milestone: 2,000,000 scenes!

The Landsat archive at USGS EROS is a continuous record that stores data from the very first Landsat mission up to the present day acquisitions of Landsat 5 and Landsat 7. Not all of these data are available to purchase (particularly the oldest), because of issues that are a consequence of their age. Every day, the staff at USGS EROS seek ways to make these older scenes available to the user community. In addition, the Landsat Ground Station downlinks about 300 new scenes daily. Between these two efforts, we have reached an exciting milestone - 2 million scenes! The effort is still underway to make all of the oldest and rarest Landsat data available.

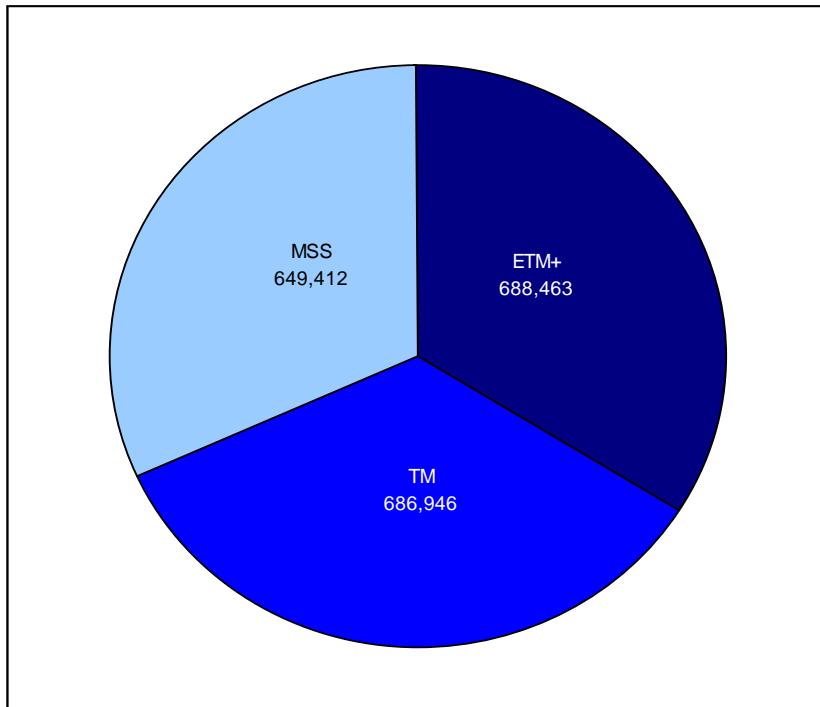


Figure 1. Total number of archived Landsat scenes.

Earth from Space traveling exhibit

Landsat data is featured in a Smithsonian National Air and Space Museum traveling exhibit called *Earth from Space*. The exhibit opened on November 11, 2006 and consists of 41 large-scale banners with satellite imagery that has been recorded over the past 30 years. The website component of *Earth from Space* can be found at <http://www.earthfromspace.si.edu>, where you can view satellite images that focus on the Earth's geology, biosphere, and atmosphere, showing the influence of people on the landscape. It also outlines some basic features of each satellite that are showcased in the exhibit.

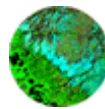
EARTH from SPACE

Online Exhibition

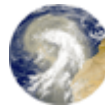
The earth, our home in space, is a varied and dynamic place. Since the advent of the aerospace age, we have gained new insights into how our planet works. Today dozens of orbiting satellites reveal structures and patterns on the earth's surface that have never been seen before.

These satellites carry sensors that allow us to observe oceans, mountains, land surfaces, human activity, and changes in global climate. The images they provide have many important applications, from mapping city streets to understanding long-term climate changes.

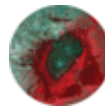
Most satellite imagery is used for scientific or technical purposes, but these complex pictures can also be appreciated aesthetically. Satellites detect subtleties and variations that human eyes cannot, providing unique and beautiful views of our planet.



Living Planet



Water & Air



Structure of the Land



The Human Presence



Satellite Technology

EarthNow! Goes Live

The EarthNow! image viewer (<http://earthnow.usgs.gov>) went live on November 2, 2006 at the USGS Center for Earth Resources Observation and Science (EROS). EarthNow! was developed by the AmericaView program and the Landsat Project and displays data received from the Landsat 5 and Landsat 7 satellites as they pass over the conterminous United States. When a Landsat satellite passes within range of the Landsat Ground Station at USGS EROS, image data are downlinked and displayed in real time. When Landsat 5 and 7 are not in range, the ten most recent passes are displayed. EarthNow! was created as an outreach tool by the Landsat project at EROS, and a version was installed on November 11 at the National Air and Space Museum in Washington, D.C.

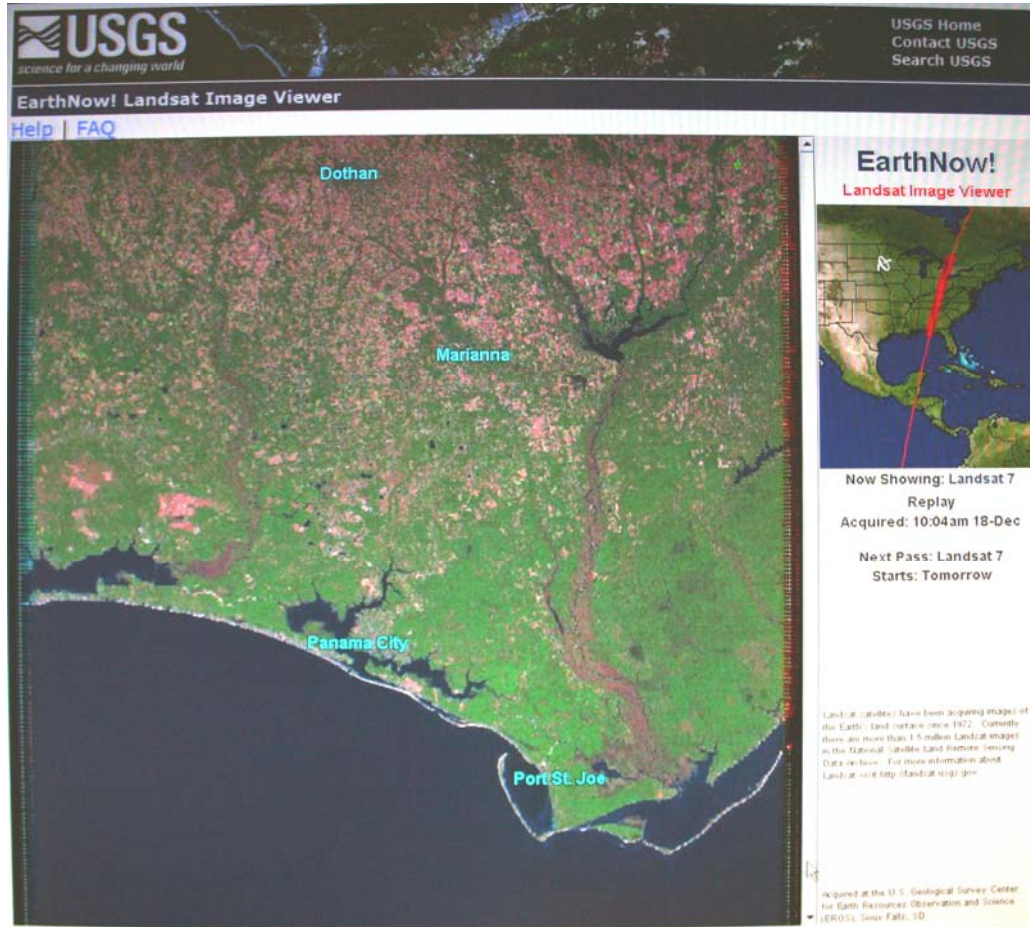


Figure 2. Screen capture of the EarthNow! image viewer.

Landsat Spotlight

Recently a landform called a chevron was noted on a Landsat 7 image of Madagascar. These chevrons may have been formed by a mega-tsunami produced 4,800 years ago by a meteorite or comet impact with the Indian Ocean.

Tsunami-generated chevrons rarely consist of a single feature but are nested like the stripes on a military uniform. The Ampalaza chevron field on the left consists of the overall v-shaped deposit and smaller nested chevrons, each with up to 20 m of relief. The axes of the chevrons indicate the direction of flow, in this case from the southeast. The tsunami flowed across 40 km of land surface at an estimated depth of 90 m. The Fenambosy chevron field on the right has lost its overall v-shape because the water's flow was spilt landward over an escarpment 200 m above sea level. Wind has reshaped the individual chevrons more than at Ampalaza. Both chevron fields were formed within the last 10,000 years, most likely around 2,800 BC. Seaward of the main Fenambosy chevron field, note the irregularly spaced chevrons, which may represent an older event. The Madagascar chevrons are far from unique, as similar landforms have been identified on the coastlines of all major oceans.

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Ancient Crash, Epic Waves - *The New York Times*, Science section, Pub. November 14, 2006

<http://www.nytimes.com/2006/11/14/science/14WAVE.html?ex=1321160400&en=35b395ffd080eb47&ei=5090&partner=rssuserland&emc=rss>

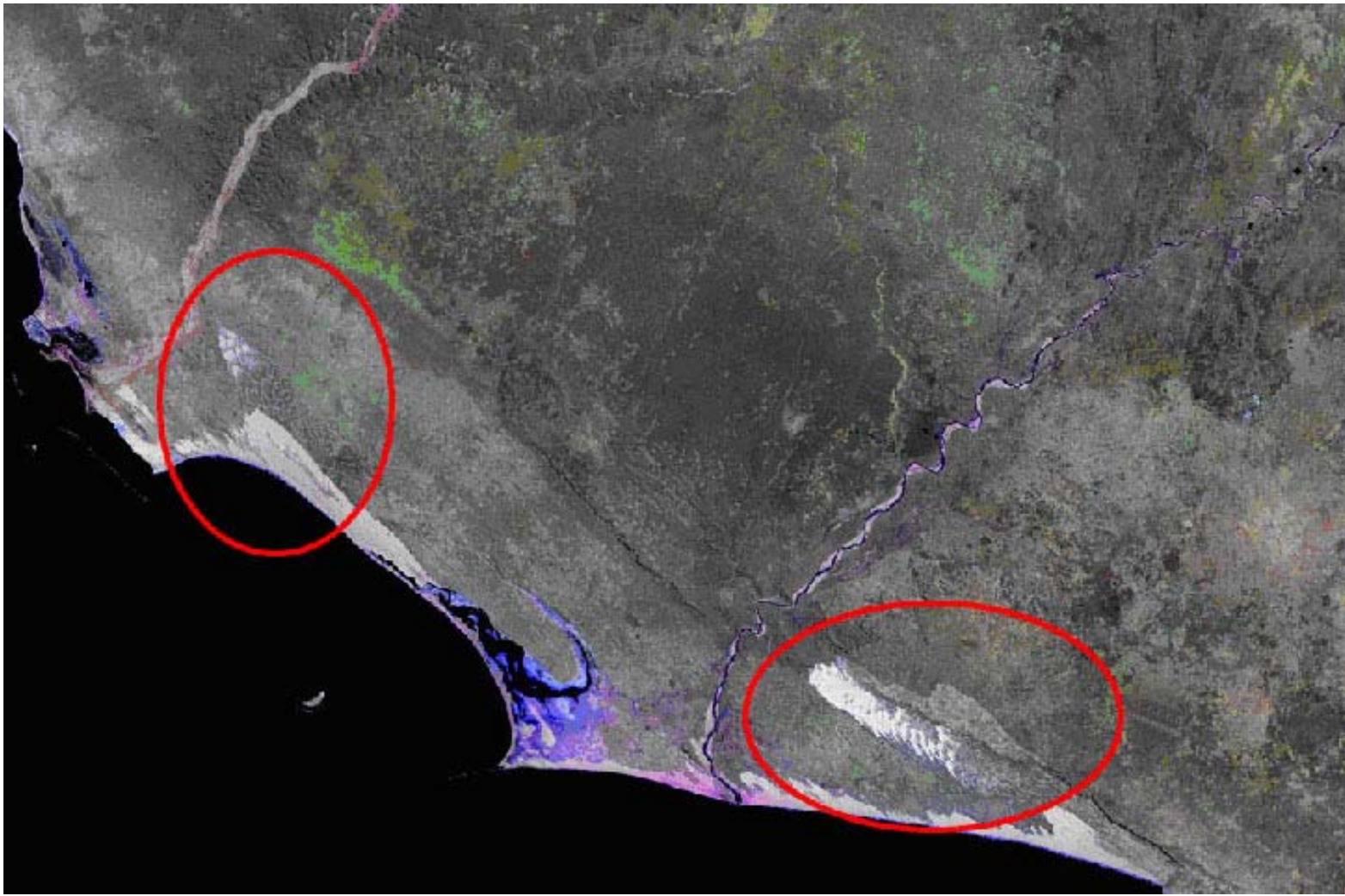


Figure 3. The chevrons are located within the circles.

Did you know...

That you can set up a **Standing Request** in Earth Explorer?

The Standing Request feature was developed to enable customers to automatically be notified of newly acquired Landsat images.

To set up a standing request, you must first select a data set and run a search, setting the Path & Row as well as cloud cover. In the Search Results Summary page, click on the **Setup Standing Request** icon. You then set additional conditions, which are shown in the graphic below.

Setup or Edit Standing Requests

Standing Request Information	
How often do you want this search to execute? Tip	Daily <input type="button" value="v"/>
Enter the date that this standing request will terminate: Tip	September <input type="button" value="v"/> 30 <input type="button" value="v"/> 2007
How do you want to be notified when new items are found? Tip	E-Mail <input type="button" value="v"/>
What options do you wish to include in your notification? Tip	<input checked="" type="checkbox"/> Browse Image (if available) Example <input checked="" type="checkbox"/> Metadata (text) Example <input type="checkbox"/> Metadata (Pipe Delimited) Example <input type="checkbox"/> Metadata (FGDC) Example
Do you want to automatically order items that are found during the Standing Request Search? Tip	No

Helpful Tips

Please provide a name for the standing request:

Standing Request -Area of Interest

When new scenes are added to the archive and they meet the criteria determined in the Standing Request, an email notification can be sent to you, alerting you of new acquisitions, along with the browse and metadata details (if these are selected in the Standing Request Information Box). Items can be automatically ordered if this option is selected.

Landsat History

(This story was taken from the [Landsat Legacy registry site](#) at the NASA Goddard Space Flight Center.)

Since the Landsat project's inception in 1965, Landsat has stood at the forefront of space-based Earth observation and has been the trailblazer for remote sensing as we know it today. But the forty-year history of Landsat has been tumultuous. The program has been variously administrated by a multitude of government agencies and a private company; consequently, the program documentation has become widely disseminated over the course of the seven Landsat missions.

In an effort to gather Landsat's technical documentation, the NASA Landsat Project Science Office (LPSO) is teaming with the U.S. Geological Survey and the NASA Goddard Space Flight Center Library to create an archive of essential Landsat documentation. The archive, dubbed the Landsat Legacy, will house technical-, policy-, and science-related documents with an emphasis on internal technical papers. Journal articles and other privately copyrighted materials are outside the scope of the project. It is the project's ultimate goal to have an online freely accessible archive of Landsat documentation that can be used by the general public by late 2006.

In order to gather the forty years worth of documentation, the LPSO is soliciting those who have been involved with the Landsat program for Landsat-related materials that have been stored in personal archives. The registration process involves entering basic information about these documents into a web-based registration system. The LPSO will review the registration records, select appropriate materials, and subsequently contact potential donors to arrange a method of document submission. Once pertinent documents have been scanned, cataloged, and archived, the Landsat Legacy document repository will provide a valuable resource for future generations of Landsat data users.

For more information about the Landsat Legacy project, please visit the [Legacy registry site](#).