

WebPanel 1. Accessing Landsat images

Steps in the processing of Landsat imagery have become increasingly automated in recent years, greatly improving the accessibility and usability of Landsat data for analysis. Non-specialists can now find sources of cost-free images that have been corrected for effects of geometry, atmosphere, and clouds, as well as sources of seamless geographic mosaics of imagery. Even those who seek more control over image analysis have many more resources available than before. Additionally, the range of US Government sources of maps showing both land cover and change continues to increase.

WebTable 1. Resources for increased use of Landsat imagery

Use	Description	Source	Name
Seamless mosaics	Browse and download weekly, monthly, seasonal, and yearly mosaics	http://weld.cr.usgs.gov	Web-enabled Landsat Data
	Visually browse the entire Landsat archive at USGS	http://landsatlook.usgs.gov	USGS Landsat Look Utility
	Global Landsat image mosaics for 1970s, 1980s, 1990s, and 2000s	http://glcf.umd.edu/data/gls	Global Land Survey
	Web-based visual change detection	http://changematters.esri.com/compare	ESRI's ChangeMatters change mapping tool
	Global seamless time-series	http://earthengine.google.org	Google's EarthEngine
Processing tools	Official site to identify and download all Landsat imagery	http://earthexplorer.usgs.gov	Earth Explorer
	Site to download "climate data record" versions of Landsat imagery	http://landsat.usgs.gov	Landsat Climate Data Records
	Software to identify clouds automatically	http://code.google.com/p/fmask/downloads/list	Fmask
	Instructions for filling gaps in imagery	http://landsat.usgs.gov/ERDAS_Approach.php	Instructions only
	Fully automated atmospheric correction to surface reflectance	http://code.google.com/p/ledaps	Ledaps
	Tools to fuse Landsat and MODIS imagery and to precision-match images to the ground surface	http://ledaps.nascom.nasa.gov/tools/tools.html	STARFM; AROP
Analysis tools	Automated algorithm for forest disturbance mapping	Huang et al. (2010)	VCT
	Temporal segmentation algorithms for landscape change monitoring	http://landtrendr.bu.edu	LandTrendr
	Free image-processing software	https://engineering.purdue.edu/~biehl/MultiSpec http://opticks.org/confluence/display/opticks/Welcome+To+Opticks	Multispec; Optiks
Maps	Land-cover maps at regular intervals	www.mrlc.gov/nlcd.php	National Land Cover Database maps for 1992, 2001, 2006, and 2011
		www.csc.noaa.gov/ccapatlas	Land-cover change analysis for areas in US within 100 km of shorelines
	Detailed vegetation maps	www.landfire.gov	US-wide maps of vegetation types

WebReferences

Huang C, Coward SN, Masek JG, et al. 2010. An automated approach for reconstructing recent forest disturbance history using dense Landsat time series stacks. *Remote Sens Environ* 114: 183–98.