

LANDSAT TM



Image 2. Landsat TM imagery acquired over Joshua Tree National Park and Palm Springs, CA using 3-2-1 True-Color Band Combination.



Image 3. Landsat TM imagery acquired over Joshua Tree National Park and Palm Springs, CA using 4-2-1 False-Color Band Combination that emphasizes vegetation communities.

Sensor Specifications

Spatial Resolution: Bands 1-5 and 7 are 30-meter-square pixels;
 Band 6, the thermal band, acquires 120-meter-square pixels.
 Swath width: 185 km.
 Revisit time: 16 days
 Operational Dates: since March 1984

<u>Wavelength Regions</u>	0.45 to 0.52 μm [blue]	0.52 to 0.60 μm [green]	0.63 to 0.69 μm [red]
	0.76 to 0.90 μm [NIR]	1.55 to 1.75 μm [SWIR]	2.08 to 2.35 μm [SWIR]
	10.4 to 12.4 μm [Thermal]		

General Discussion

Landsat TM can provide users with coarse scale imagery that covers large areas at a relatively low cost. Costs could be as low as \$0 - \$600 depending on the date of the imagery and if it was previously procured by another DoD agency. If extensive processing is required the costs may be \$5,000 per frame.

Vendor Information

For more detailed vendor information contact:
 contact:

Directorate

EOSAT's Customer Services Department
 (301) 552-0537 or 1-800-344-9933 x537
 email: custservices@eosat.com
 web: <http://www.eosat.com>

or

EROS Data Center, USGS
 User Services Section
 Sioux Falls, SD 57198

Government

Phone: (605) 594-6151 fax x6589
 email: custserv@edcserver1.cr.usgs.gov
 web: <http://edcwww.cr.usgs.gov/webglis>

US Army Civil Imagery Acquisition Program

For availability questions and purchasing
 Topographic Engineering Center - Ops

7701 Telegraph Road
 Alexandria, VA 22315-3864
 Phone: (703) 428-6909 DSN 328-6909
 email: msantoro@tec.army.mil
 web: <http://www.tec.army.mil/OD/service.html>
 and go to Imagery Acquisition

Landsat TM Data Grant Collection

The Landsat TM Data Grant Collection of over 500 scenes is available free to qualified U.S.

and Affiliated Users. Other TM data may be available at approximately \$425 to \$600. Contact: EDC DAAC User Services, EROS Data Center Sioux Falls, SC 57198
 Phone: (605) 594-6116 fax x6589
 email: edc@eos.nasa.gov
 web: <http://edcwww.cr.usgs.gov>

SPOT



Image 4. SPOT Panchromatic image acquired over Ft. Irwin, CA. Panchromatic imagery is primarily intended for applications requiring fine geometric detail.

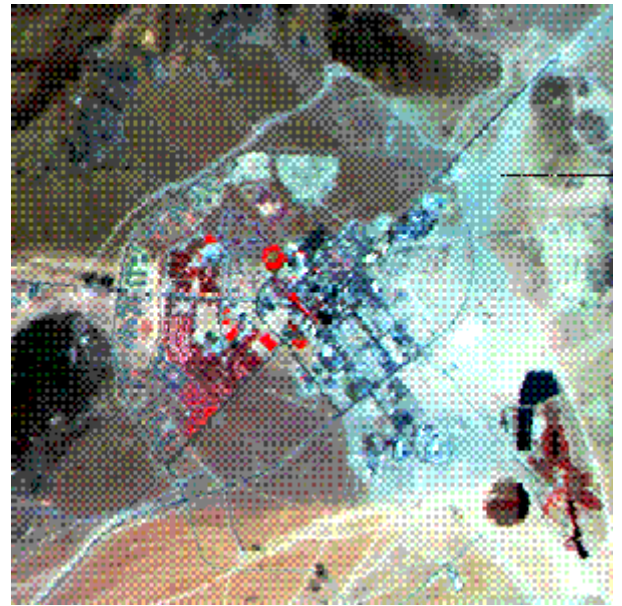


Image 5. SPOT XS (multispectral) image acquired over Ft. Irwin, CA. The infrared spectra emphasizes the vegetation communities.

Sensor Specifications

Spatial Resolution: 10-meters for the Panchromatic sensor
 30-meters for the Multispectral sensor
 Swath Width: 60 km
 Revisit Time: 26 days for nadir view; 1-3 days off-nadir
 Operational Dates: since February 1986

Wavelength Regions

Panchromatic
 0.51 to 0.73 μm

Multispectral
 0.50 to 0.59 μm [green band]
 0.61 to 0.68 μm [red band]
 0.79 to 0.89 μm [near-infrared band]

General Discussion and Costs

SPOT imagery has a small footprint relative to MSS and TM and is good for seasonal green-up in arid-regions. Because the sensor can be pointed at areas of high interest, users can receive quicker revisit images and stereo capabilities. SPOT employs different levels of processing for its customers: Level 1A, Level 1B, and SPOTView. SPOTView is a precision-processed, GIS compatible, map projected product. SPOTView products are intended for GIS and image map applications. The next SPOT satellite, SPOT 4, is scheduled for launch in 1997. With an additional spectral band in the mid-infrared (MIR) range and a new vegetation instrument, the sensor will have improved capability for global monitoring of vegetation cover. Level 1A and 1B products, for an area approximately 60 km x 60 km, run upwards from \$700 for film, \$850 for print, and \$2,000 to \$2,800 for digital. The SPOTView products run from \$1,000 on up to about \$13,000 depending on the size of the area and the sensor used. Large area coverage is also available and is priced on a cost per-square-mile basis.

Vendor Information

For more detailed vendor information contact:

SPOT Image Corp.
 1897 Preston White Drive
 Reston, VA 22091-4368
 Phone: 1-800-ASK-SPOT
 (703) 715-3100 fax (703) 648-1813
 email: creech@spot.com [Bill Creech, Defense Sales]
 web: <http://www.spot.com>
 also http://developers.ivv.nasa.gov/rem_sen/earth_sci/spot.html

U.S. Army Civil Imagery Acquisition Program

For availability questions and purchasing contact:
 Topographic Engineering Center - Ops Dir
 7701 Telegraph Road
 Alexandria, VA 22315-3864
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STANDARD AERIAL PHOTOGRAPHY (NHAP/NAPP)



Image 6. A 1954 black & white photograph over Fairfax County, VA. Historical photography is useful for monitoring changes.

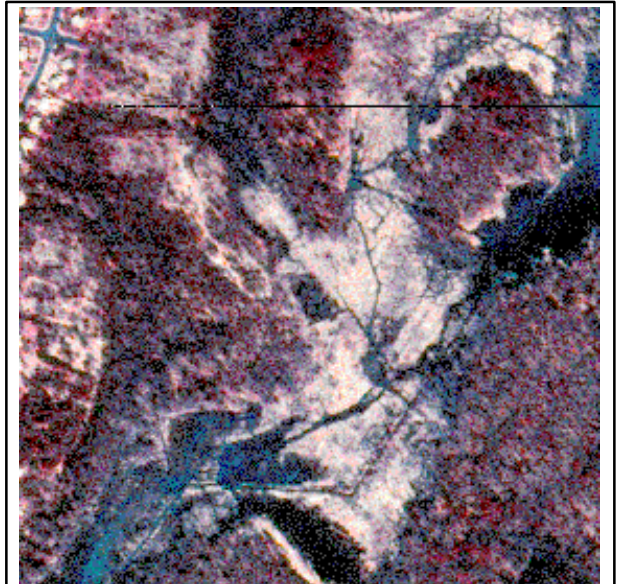


Image 7. A color infrared photograph over a portion of Huntley Meadows Park in Fairfax County, VA

NHAP National High-Altitude Photography

Specifications

Spatial Resolution:

1:58000 [using CIR film and a 8.25-inch focal-length mapping camera flown at 40,000 ft above mean terrain]

1:80000 [using PAN film and a 6-inch focal-length mapping camera flown at 40,000 ft above mean terrain]

Revisit Times: Varied coverage over the 48 conterminous states

Flight Lines: Centered on the 1:24,000-scale USGS map series

Operational dates: Flown between 1980 and 1987

NAPP National Aerial Photography Program

Specifications

Spatial Resolution: 1:40,000 [using B&W or CIR film and a 6-inch focal-length mapping camera flown at 20,000 feet above mean terrain]

Revisit Times: Varied coverage over the 48 conterminous states

Flight Lines: Quarter quad-centered on the 1:24,000-scale USGS map series

Operational dates: Flown since 1987, as a follow-on to NHAP

NHAP/NAPP General Discussion and Costs

Standard aerial photography is used extensively for eastern forest and wetland mapping. Photographs are a high detail source for relatively small areas at a low cost. Conversely, a large number of photos would be required for large area analysis. Aerial photography additionally serves as a source of historical data useful for change detection analysis. Costs: \$8.00 and up for black and white prints.

Vendor Information

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EROS Data Center

User Services Section

Sioux Falls, SD 57198

Phone: (605) 594-6151 fax x6589

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web: <http://edcwww.cr.usgs.gov/webglis>

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