

# SWAC MODULE: LAND SURFACE INTERPRETATION

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## SPECTRAL SIGNATURE

-NASA, Remote Sensing Tutorial

[http://rst.gsfc.nasa.gov/Intro/Part2\\_5.html](http://rst.gsfc.nasa.gov/Intro/Part2_5.html)

Information about the spectral signature of different mediums and objects.

## PHOTOINTERPRETATION

-NASA, Remote Sensing Tutorial

[http://rst.gsfc.nasa.gov/Intro/Part2\\_6.html](http://rst.gsfc.nasa.gov/Intro/Part2_6.html)

Examples of the different patterns that can be seen in looking at various types of vegetation.

-University of California, Intro to Aerial Photo Interpretation

[http://www.geog.ucsb.edu/~jeff/115a/jack\\_slides/](http://www.geog.ucsb.edu/~jeff/115a/jack_slides/)

Look through the different pages for examples of photos where the clues and tools in this section can be applied. Includes information about upcoming topics such as color composites.

-Emporia State University, Landsat Image Interpretation

[http://academic.emporia.edu/aberjame/remote/landsat/landsat\\_interp.htm](http://academic.emporia.edu/aberjame/remote/landsat/landsat_interp.htm)

Read the text just after the images on the left and before Spectral Signatures. This is going to lead into the next topic, color composites, but you will be able to see how the tone / color of each of the photos was selected to bring out specific features in the images.

\*-University of California, Berkeley, Image Interpretation

<http://www.cnr.berkeley.edu/~gong/textbook/chapter7/html/sect71.htm>

An excellent and comprehensive document about the elements of imagery, strategies of interpretation, and the basic skills of interpretation.

## COLOUR COMPOSITES

-USGS Understanding CIR photos

<http://erg.usgs.gov/isb/pubs/factsheets/fs12901.html>

Side by side comparisons of CIR and natural composites. Good information about the differences in what can be seen between the two image types.

-NASA, Remote Sensing Tutorial

[http://rst.gsfc.nasa.gov/Intro/Part2\\_13.html](http://rst.gsfc.nasa.gov/Intro/Part2_13.html)

Information about why CIR imagery can be better suited for vegetation type applications.

\*-Towson University, Color Composite Imagery

[http://chesapeake.towson.edu/data/all\\_composite.asp](http://chesapeake.towson.edu/data/all_composite.asp)

Explains how different colors map back to the original grayscale images taken by satellites. There are also examples of different types of composites along with some benefits of each type.

## GENERAL URLs

<http://edc.usgs.gov/LewisandClark/>

<http://earthobservatory.nasa.gov/IOTD/view.php?id=6800>

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## ADDITIONAL RESOURCES

**A/**

<http://www.ssec.wisc.edu/modis-today/>

MODIS Satellite Data

**B/**

1. Go the Chesapeake Bay Landsat Data site <http://chesapeake.towson.edu>
2. Select the GEOSPATIAL DATA button.
3. Select the Data Download button from the choices on the right.
4. We shall be using the data from a specific county only, so under the “Browse the archives to download” heading select “List of counties”.
5. Scroll down and select the Clinton County in New York state.
6. From there, we are going to be working with the individual Landsat ETM+ data bands. Selecting this will open up a dialog that asks you where you would like to save the zipped file containing the data.

**C/**

<http://edcwww.cr.usgs.gov/imagegallery/>

Earth as Art (USGS)