Project Prospectus Assignment

A one-paragraph prospectus for your project is due in class Thursday, March 1. The purpose of this assignment is to get you thinking about how to design a feasible project, and to allow the instructors an opportunity to offer suggestions early on in your process.

The prospectus should include a description of your proposed project, including a statement of goals, potential data to be used, and a list of ten or more references from the remote sensing and related literature (indicate with a check mark which of these papers you have read in the write-up).

Please read the Term Project Definition and the Project Ideas pages on the OEFS website for more information on the assignment and possible topics:

http://www.yale.edu/ceo/OEFS/ProjDef.html and
http://www.yale.edu/ceo/OEFS/ProjectIdeas.html

You might also browse the student course projects from previous years at:
http://www.yale.edu/ceo/OEFS/PastProjects.html

Project reports and presentations from 2004 on can be found on the YCEO server at N:\OEFS\PastProjects. Prior year reports are located in class project binders in the YCEO lab. Also browse the webpage describing current and past student research projects:

http://www.yale.edu/ceo/Projects/Students/students.html

The prospectus should get you thinking both about a concept for your project and about finding the datasets you will need to complete it. Many projects can be accomplished using free images from the Landsat, ASTER and MODIS sensors. Please read the three FAQs about obtaining and importing data using these sensors at:
http://www.yale.edu/ceo/Documentation/ceo_faq.html

For now try to identify a single good scene that you can use as part of your project. Zoom in to an area of your scene that is most interesting and place a copy of the image at the end of your project prospectus report.

Depending upon the project, you may need to order specific data for your project. If nothing else is available get a Landsat image covering part of your image and attached that. Either get one online or use the YCEO archive (described below).

Often times, an image covers a larger area than you will actually use for a given project. It is much faster to work with a smaller image so it's good to get in the habit of subsetting images to contain only the region in which you are interested.

The easiest way to subset an image in ENVI is to select**: File ➔ Save File As ➔ ENVI Standard**. After selecting the image to subset, click on the *Spatial* Subset button and use one of the several techniques to subset the image. Read the ENVI help screens to explore these options.

□ **Use the Classes Drop-Box to submit this assignment.**

YCEO Archive Tutorial

In the past, projects for this course have been limited not by imagination, but by the availability of low-cost, easy to find images. As an introduction to some of the images available right here at the YCEO, complete the following short tutorial on the YCEO Archive. Once the USGS offered Landsat images for free the YCEO stopped archiving these images, however you may find older scenes in our archive that are not available online.

Over the years, the YCEO has collected hundreds of remote sensing images from around the world and archived them for future use. In this tutorial, you will identify an interesting image in the archive and save a subset of this image. Please complete each step.

□ **Search for an image using the YCEO web site. If you can, use this opportunity to look for an image for your actual project.**

Go to www.yale.edu/ceo, and click on the Dataset Archive link. There are a number of ways to search and find images from this page, including an interactive map. To use the map, scroll down to it and try clicking on an area of interest. Once you've found a region for which the YCEO has archived images, your clicks will zoom you in to the selected region. As long as there are images available, you'll quickly click down to a list of available scenes (including a description with the date, satellite and sensor type, projection, location, and storage method). Most images also include a snapshot, which allows you to quickly check image quality (cloudiness, etc.).

While the archives are stored in a number of different formats, for now, choose an image that is available on a CD. Once you've identified an image and noted the CD number, retrieve the disc with the proper number from the archive drawers at the back of the YCEO lab. Bring the CD back to your workstation and load it into the CD drive.

□ **Load, browse, and save a subset of your image in ENVI.**

Make sure to return the CD to its original location when you've finished.