GEK2503: Remote Sensing for Earth Observation
Lab 1: Satellite Remote Sensing Images on the Internet
18 August 2016

Report Submission deadline: 24 August 2015, 11:59 pm.

In this session, we will visit some interesting web sites to look for satellite remote sensing images. We will also discuss the different types of images that you may encounter. Among the websites are those maintained by the major space agencies such as NASA, ESA and JAXA, international ground stations, operational agencies such as NOAA, USGS, and commercial vendors such as SPOT and DigitalGlobe.

CRISP maintains a web-based catalogue of all images acquired by its ground station. "Quicklook" images (also known as "browse images"), location maps and metadata (e.g. date and time of acquisition, imaging modes, geographic coordinates, sun angles, sensor viewing angles, cloud coverage, etc.) of the archived scenes are available in the catalogue. CRISP started acquisition of satellite images since September 1995. The web-based catalogue is freely accessible, but you need to be a registered user before you can access the catalogue.

The quicklook images are reduced resolution images. They enable potential users of the satellite images choose the scenes that are available, and access their usability before they actually order the full-resolution images.

Important: Most images you find on the internet are copyrighted material. Before you use any of these images for whatever purposes, read the copyright statements and conditions of use.

Task 1

Go to the CRISP catalogue web site and register yourself as a user of the catalogue. Go to http://www.crisp.nus.edu.sg/ and click on "catalogue" button on the top banner, then follow the on-screen instructions. It is free! You need to supply your valid email address during the registration process. It is preferable to use your NUS email. The system will send a password to you by email almost instantaneously. Logon to the catalogue web site after you have received your password.

Identify three areas of your interest in Southeast Asia (preferably with different land cover features). Find a good browse image of each area in CRISP's archive.

Attach the browse images in your report, and for each image state:
- Satellite
- Scene ID (the unique ID that identifies each image)
- Date and time of acquisition
- Location (scene center coordinates, and location name if known)
- A brief description of the scene and identify some features observed

Task 2

Choose one interesting location anywhere in the world and find <u>two</u> or more satellite images (**not from the CRISP catalogue**) of that location. For each image, state (if known):
- Location name
- URL where you found the image
- Name of the organization that hosts this URL
- Name of the organization(s) that produced this image
- Date and time of image acquisition (if known)
- Satellite sensor acquiring the image
- Approximate dimensions of the Earth's surface covered by the image
- Approximate size of the smallest feature you can see in the image
- A brief description of the scene and some features identified in the image
- Copyright statements and conditions of use (if any)

Don't worry too much if you can't find some of the information.

If possible, find some "ground truth" information (e.g. photographs, maps, tourist information, etc.) of the location and relate them to the features seen in the satellite images.

Submit your report to IVLE Files (Workbin) > "Student Submission" > "Lab 1 report" by 24 Aug 2016, 11:59 pm.

Some notes on plagiarism

Plagiarism is generally defined as "the practice of taking someone else's work or ideas and passing them off as one's own" (The New Oxford Dictionary of English). Plagiarism is a serious offence of academic dishonesty. The University takes a serious view of plagiarism. Any student found to have committed or aided and abetted the offence of plagiarism may be subject to disciplinary actions in accordance with Section 3 (L) of Statute 06 (Discipline) of the National University of Singapore (http://www.nus.edu.sg/registrar/info/statutes/Statute06.pdf).

In the age of internet, information seems to be freely available after administering a few key strokes on the keyboard. It is very tempting to "copy and paste" into your report whatever you find on the internet. Don't do it! First, it may be illegal to do so. Second, and more importantly, you may be committing an act of plagiarism and intellectual dishonesty.

Always cite the original source of the material (text, figure, picture, … etc.) you include in your report if it is not your own work or idea. Use quotation marks ("whatever quoted…") to indicate the content directly copied from other sources. Use them sparingly and only when absolutely necessary. Follow the rule of thumb that every line of quotation should have at least two lines of your own analysis. Always cite the source.

Some useful information: Plagiarism.org: http://www.plagiarism.org/
Wikipedia – Plagiarism: https://en.wikipedia.org/wiki/Plagiarism
CDTL – Plagiarism and How You Can Avoid It: http://www.cdtl.nus.edu.sg/success/sl7.htm