

Data processing and Visualization of NOAA Satellite and Global Energy products

=====

NOAA operates several satellites used to monitor the earth system. From variables in the atmosphere to protection of coral reefs, Satellite provides global coverage to help us predict changes to our environment. At CCNY, we have a Direct Readout Facility that collects and processes all these data directly from the satellite. Also at CCNY, Dr. Bill Rossow as a collection of Global energy and water cycle products collected over a 25-30 year period.

Project I : Data Processing and Visualization for the GEWEX Global energy and water cycle product.

Students will process the GEWEX datasets and create maps/graphs of different environment variables (temp, aerosols etc.) over a period of time (3month – 1yr). The generated images will then be converted into a gif/movie clip showing environmental changes.

Project II: Data Processing and Visualization for NOAA Geostationary and Leo Satellite

Students will take some level 1 satellite products and process them using a precompiled software to create level 2 products (such as sea surface temp) and then create graphs/maps of the generated variable. This will be done for several satellite pass over a 2-day period. The generated images will then be converted into a gif/movie clip showing environmental changes.

*Project will include reading data, remapping the data and creating maps/images.
Once the projects are complete, Students will display their images on the CREST SOS/Globe.
This requires the images to be converted to the right format.*