

# **Remote Sensing Research and Digital Archives at the University of Puerto Rico**

Presented at the  
FIU AMPATH Workshop to Identify Areas of Scientific Collaboration  
between the US and the AMPATH Service Area

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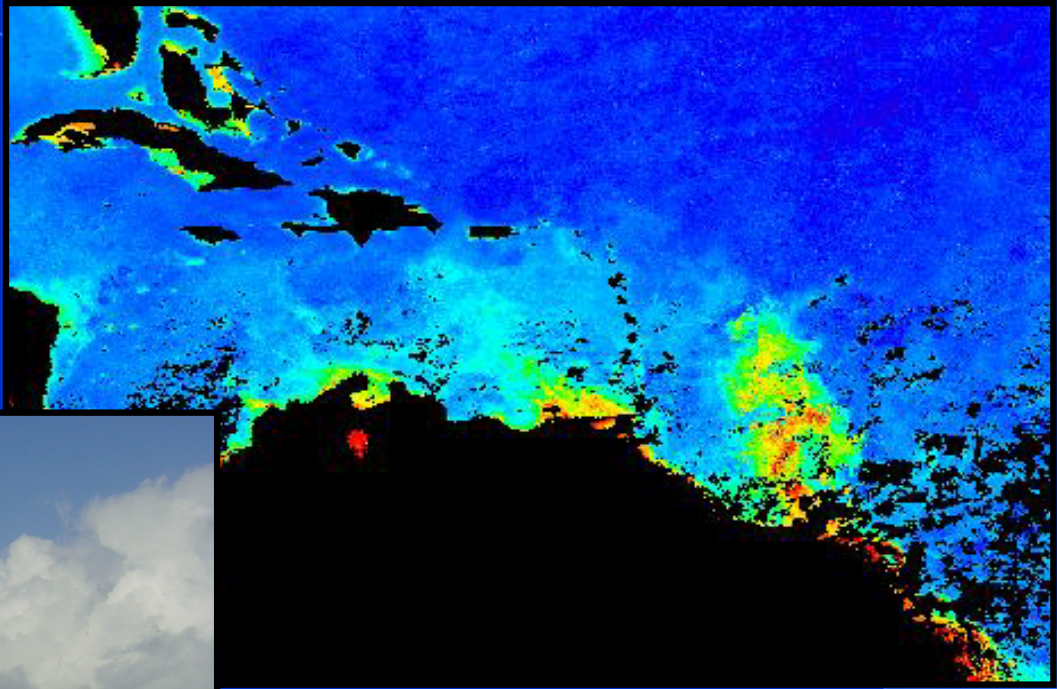
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**Space Information Laboratory, Tropical Center for Earth and Space Studies**

**University of Puerto Rico, Mayaguez Campus**



# Oceanographic Research



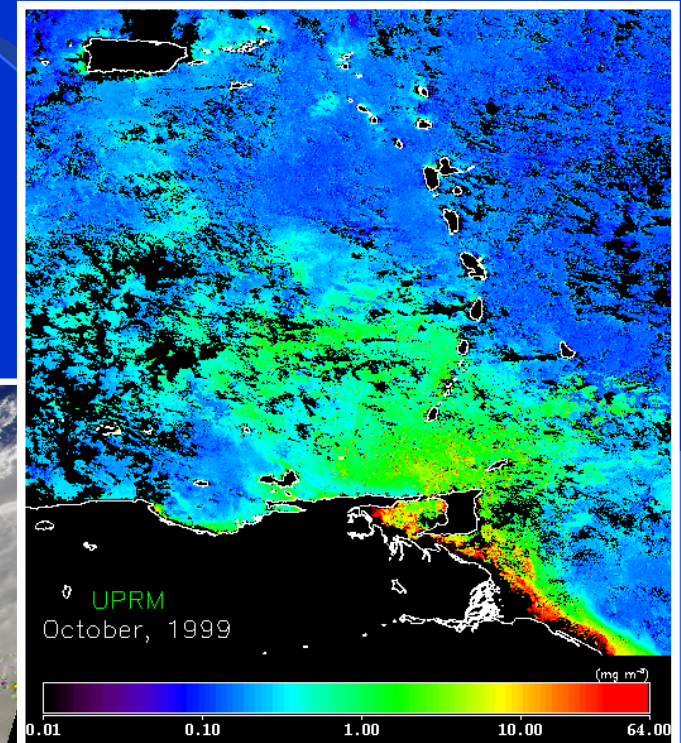
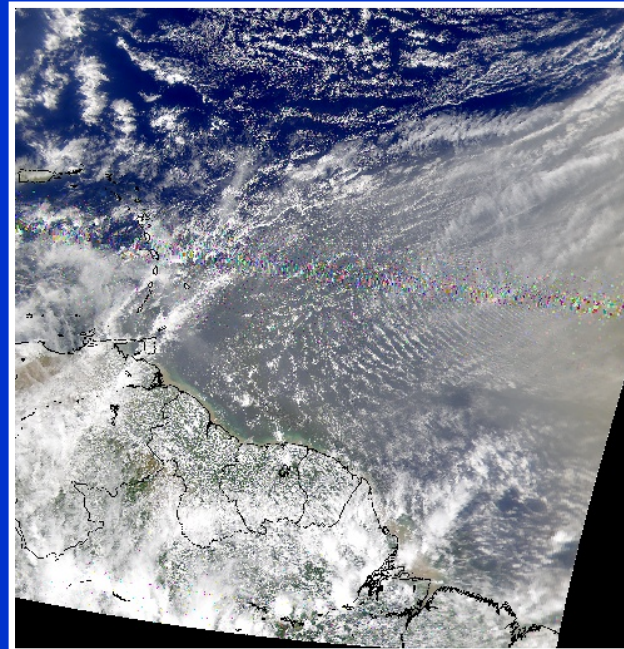
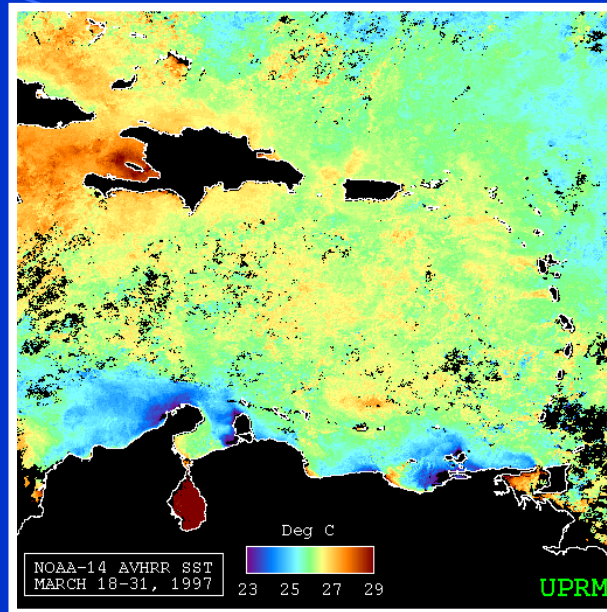


# OCEAN FERTILIZATION STUDIES

✓ Studies of coastal upwelling in Venezuelan Waters.

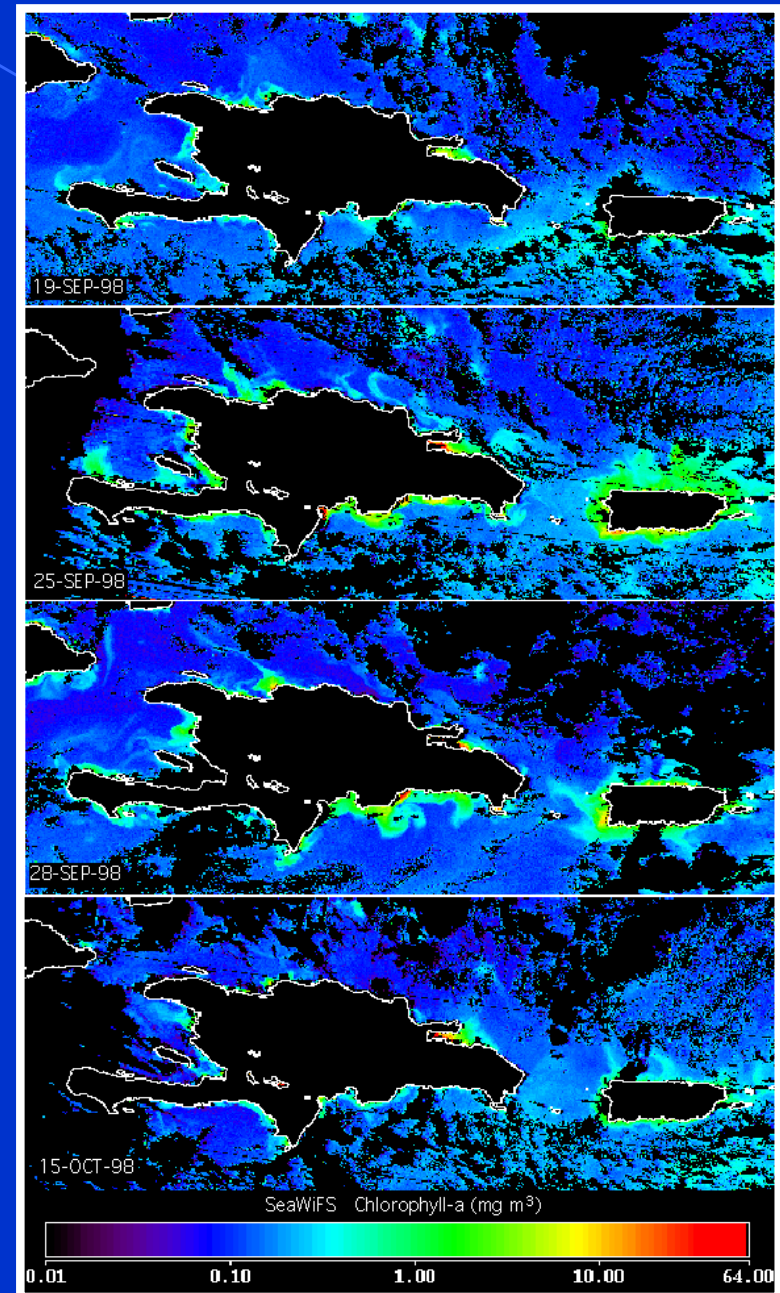
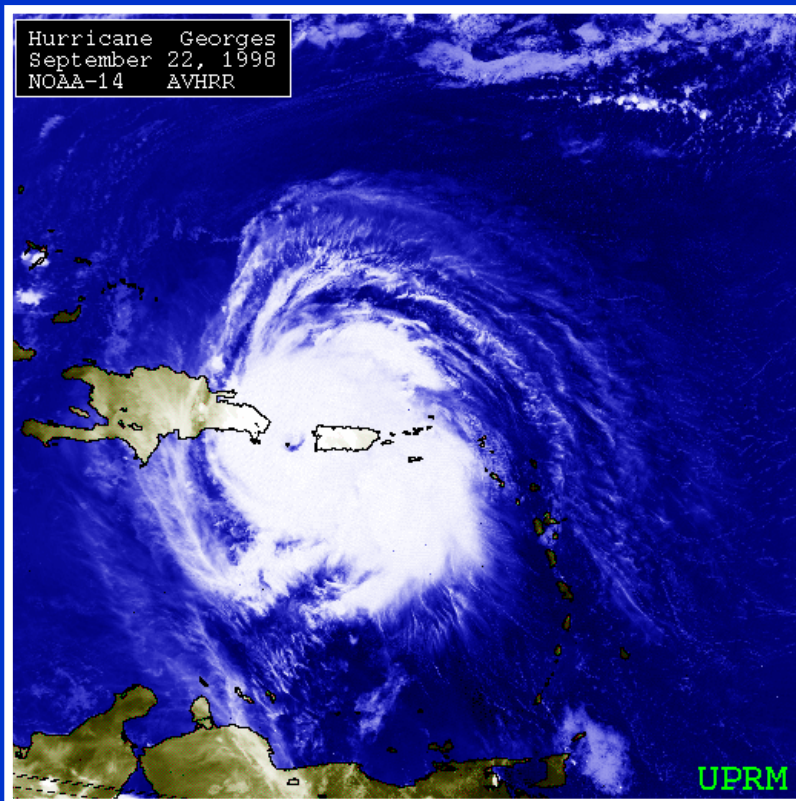
✓ South American river intrusions in the Eastern Caribbean

✓ Effects of Sahara dust aerosols in the tropical Western Atlantic



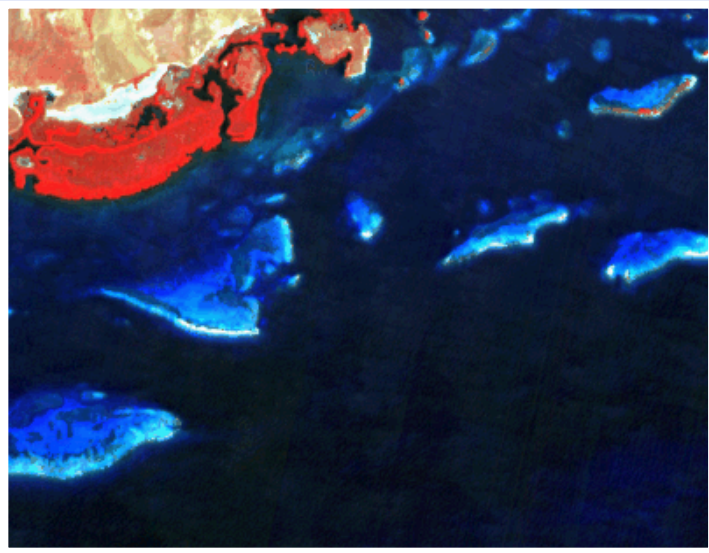


# PHYTOPLANKTON BLOOM AFTER HURRICANE GEORGES





# Landsat Thematic Mapper Data



La Parguera,  
Puerto Rico



Los Roques, Venezuela

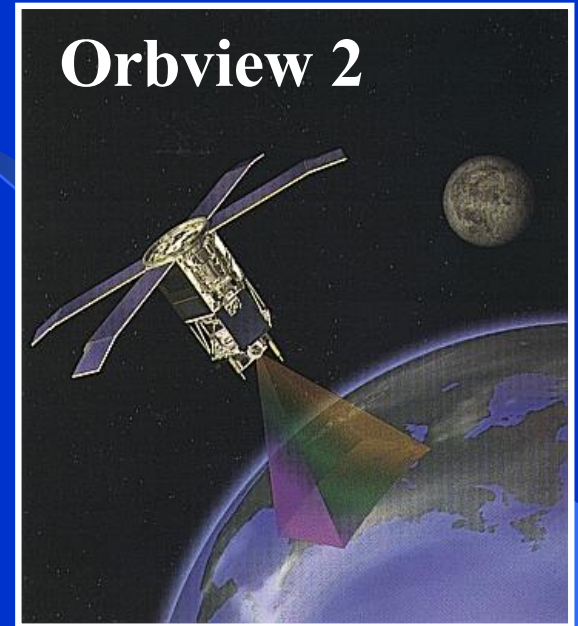


# L-BAND ANTENNA



SeaWiFS

AVHRR



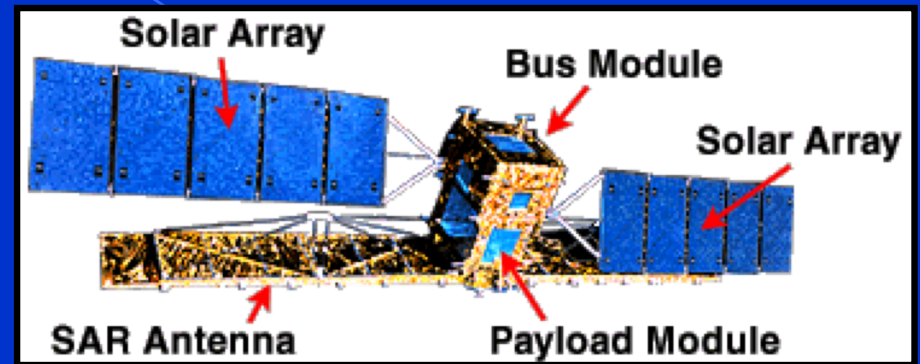
Orbview 2



NOAA 12,14,15

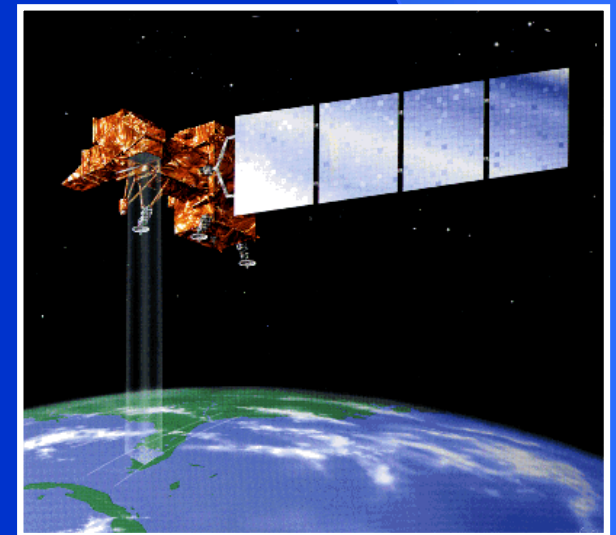
# X-BAND ANTENNA

## RADARSAT



SAR

## LANDSAT-7



ETM+

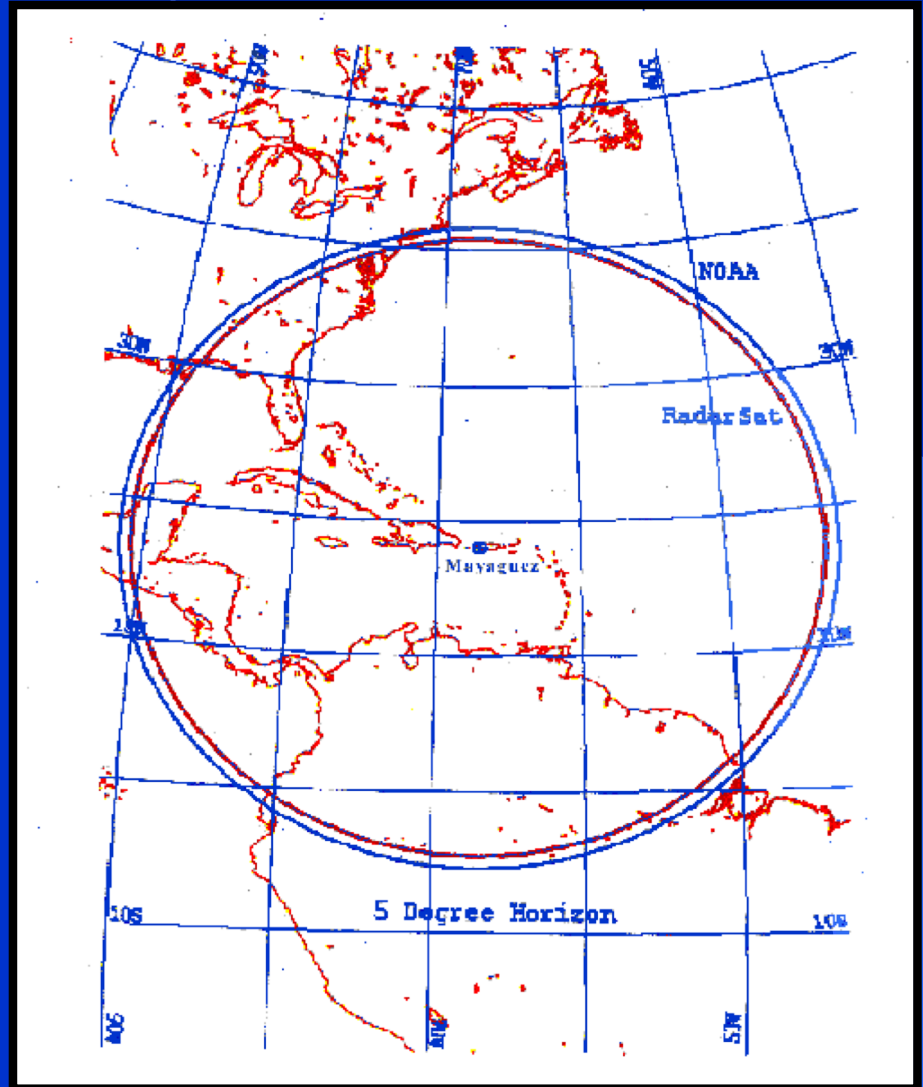




# FOOTPRINT OF THE UPRM SATELLITE RECEIVING STATION



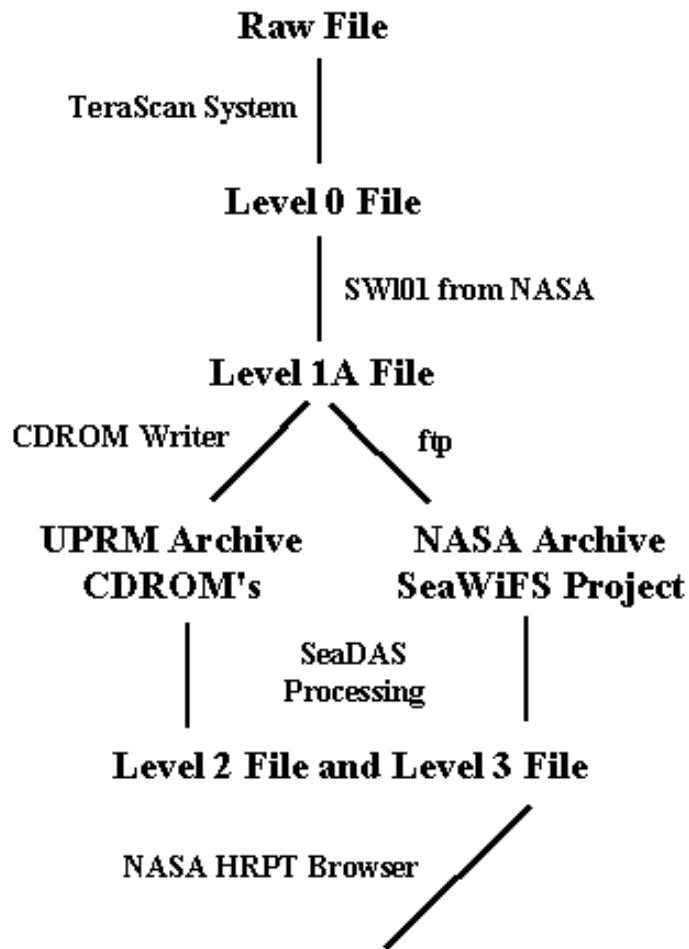
## X-BAND RECEIVING FACILITIES





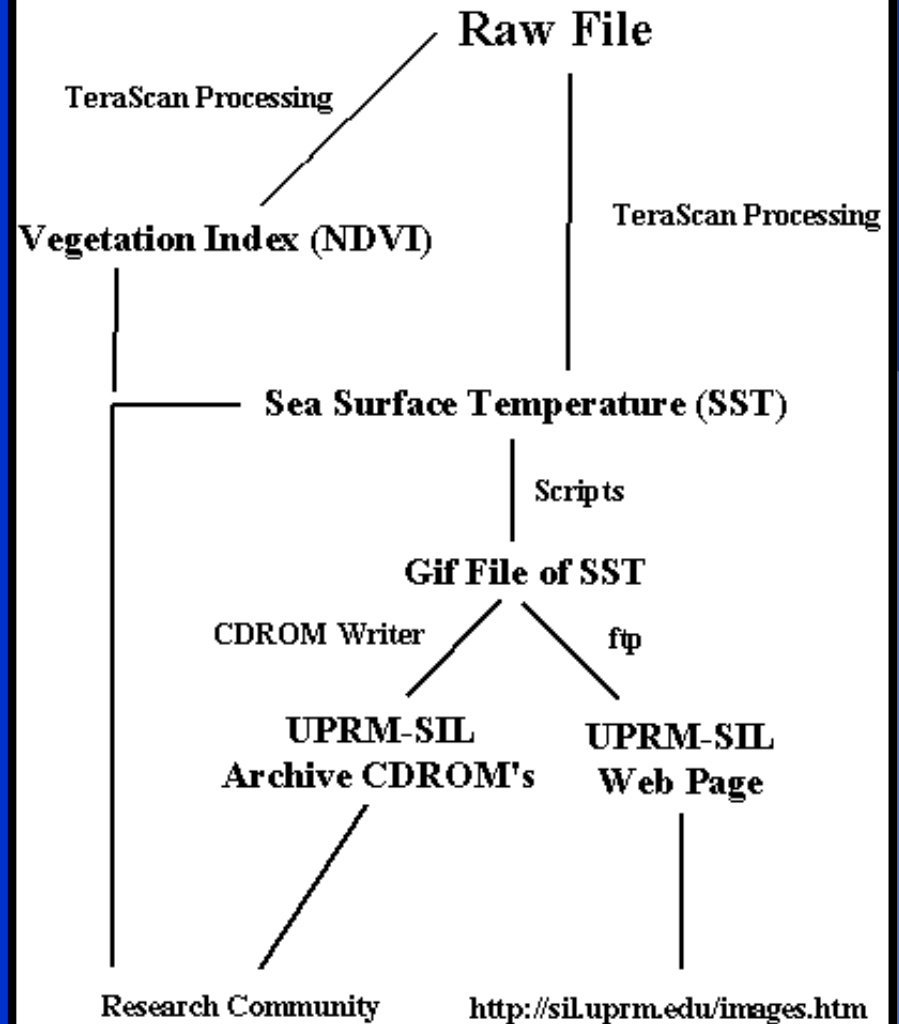
# IMAGE PROCESSING

## SeaWiFS Image Processing



[http://seawifs.gsfc.nasa.gov/cgi/hrs/hr\\_pt\\_browse.pl?S=UPR](http://seawifs.gsfc.nasa.gov/cgi/hrs/hr_pt_browse.pl?S=UPR)

## AVHRR Image Processing



Research Community

<http://sil.uprm.edu/images.htm>

# IMAGE FILE SIZE

**AVHRR**  
**SeaWiFS**

**TeraScan**



**Software**

**Raw File = 60-100 MB**

**L1 File = 50-90 MB**

**L3 File = 1-2 MB**

**SAR**

**Vexcel**



**Software**

**Raw File = 3-4 GB**

**L0 File = ~0.5 GB**

**ETM+**

**Vexcel**



**Software**

**Raw File = 1-8 GB**

**L0 – Not Available Yet**



# Remote Sensing Resources

## University of Puerto Rico

- TCESS – Space Information Laboratory
  - <http://sil.uprm.edu/>
- NASA GSFC SeaWiFS HRPT Browse
  - [http://seawifs.gsfc.nasa.gov/cgihrs/hrpt\\_browse.pl?S=UPR](http://seawifs.gsfc.nasa.gov/cgihrs/hrpt_browse.pl?S=UPR)
- Real-Time Sea Surface Temperature
  - <http://sil.uprm.edu/images.htm>
- Bio-Optical Oceanography Laboratory
  - <http://cacique.uprm.edu/~biol/>