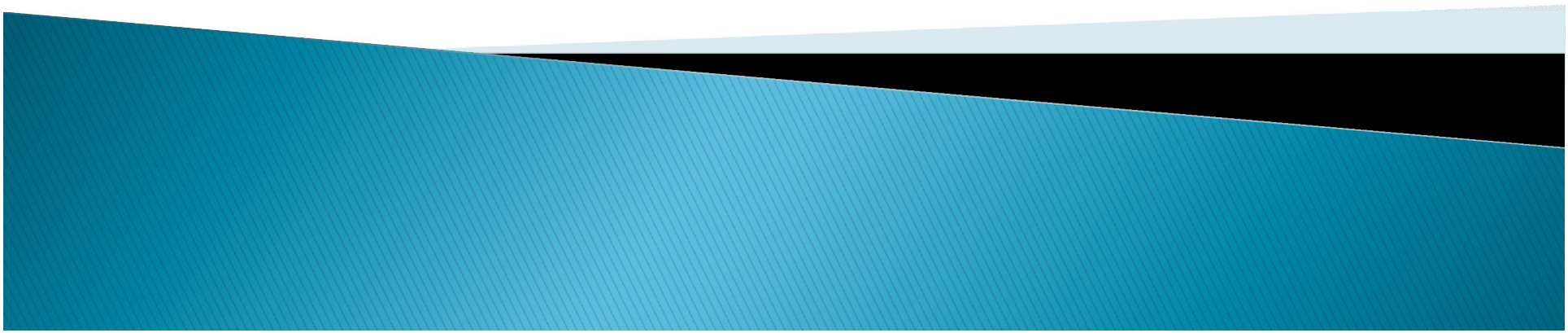
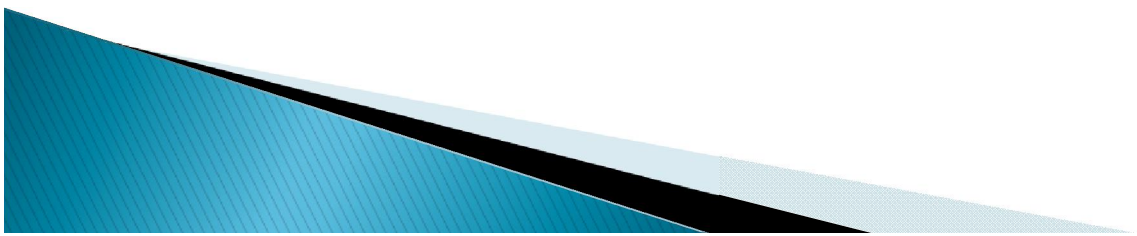
CLASSIFICATION OF A IMAGE USING FALSE COLOR COMPOSITES



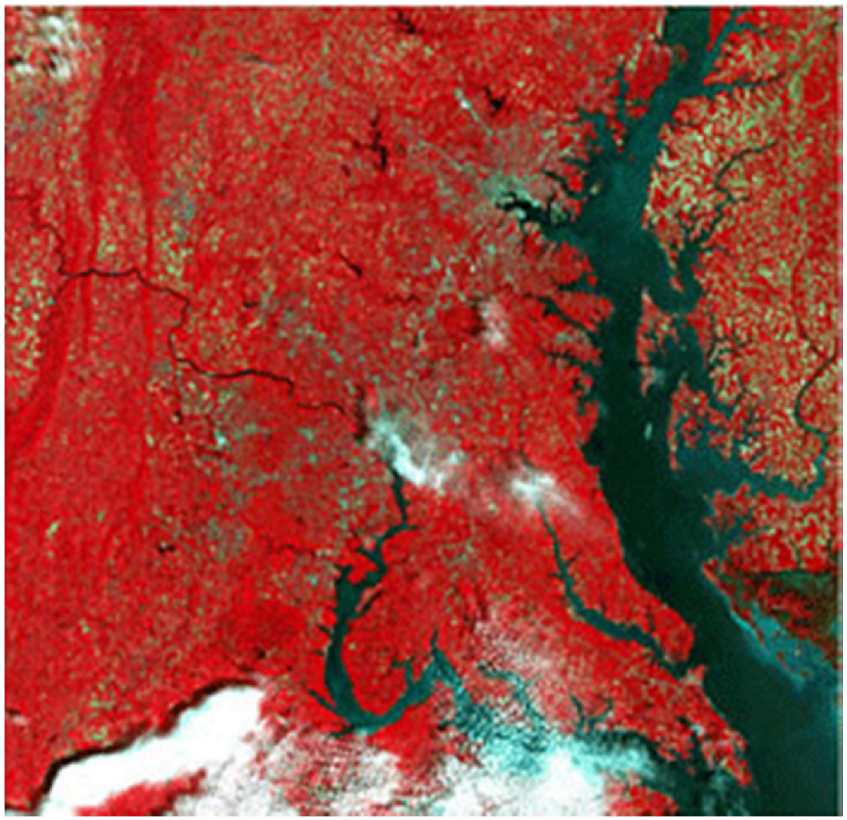
Creating a false color composite

- *An image produced by displaying multiple spectral bands as colours different from the spectal range they were taken in.*
- *Done by assigning 4th band to red,3rd band to green and 2nd band to blue.*
- *Commands used are,*

1. *i.landsat.rgb - Auto-balancing of colors for LANDSAT images.*
2. *r.composite - Combines red, green and blue raster maps into a single composite raster map.*



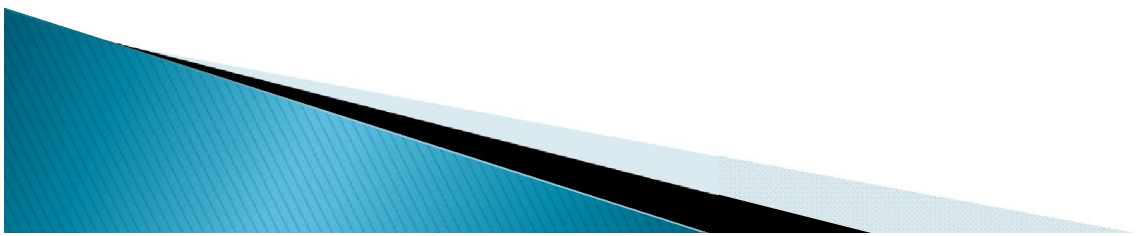
True color image



False color composite

Invoking graphics monitor

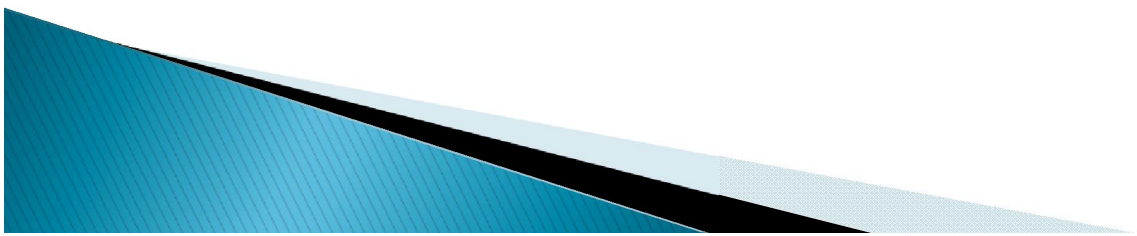
- *Command d.mon start=x0 is used.*
- *Once monitor is displayed it is made to fit to the window size.*

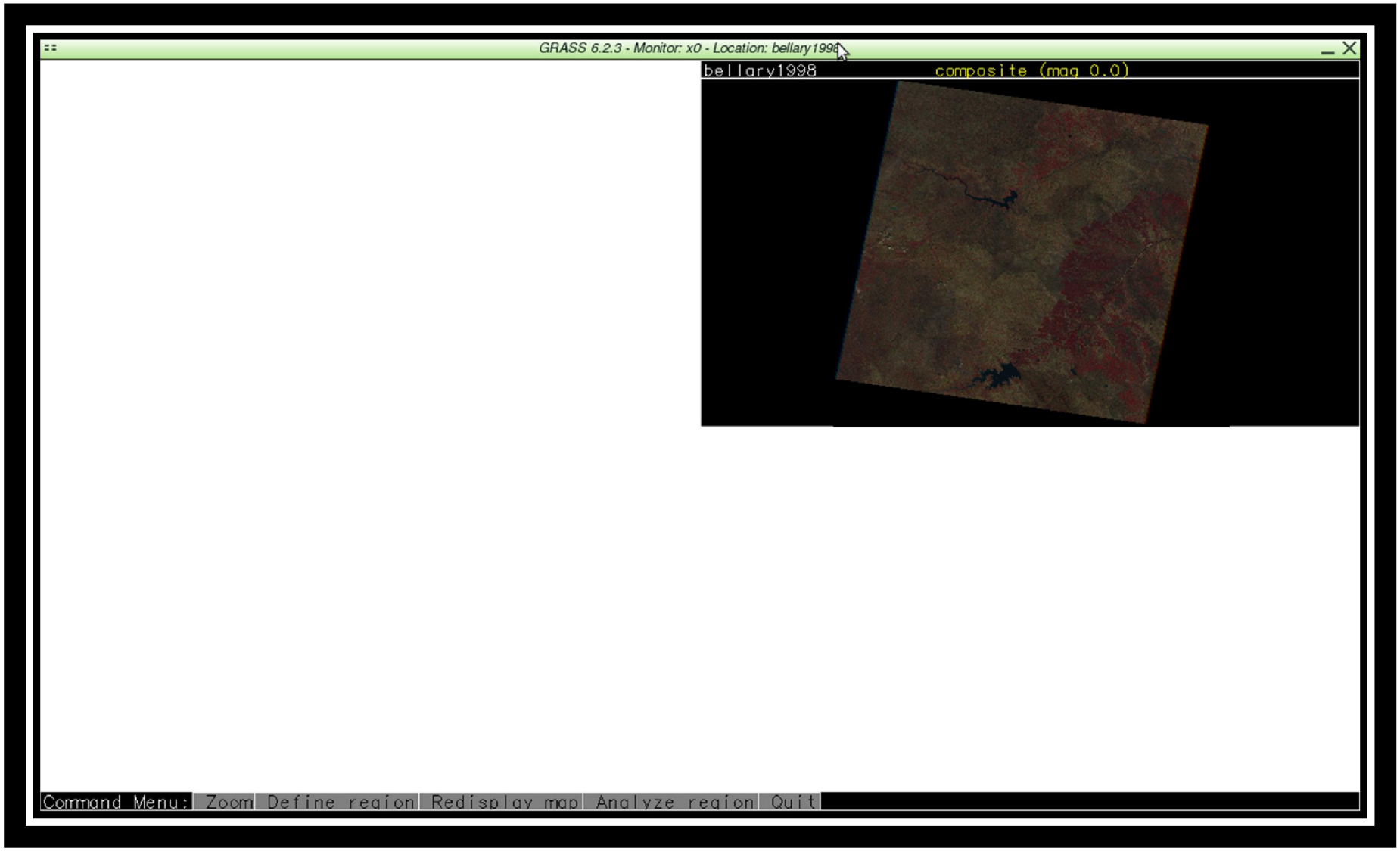


Display monitor fit to window

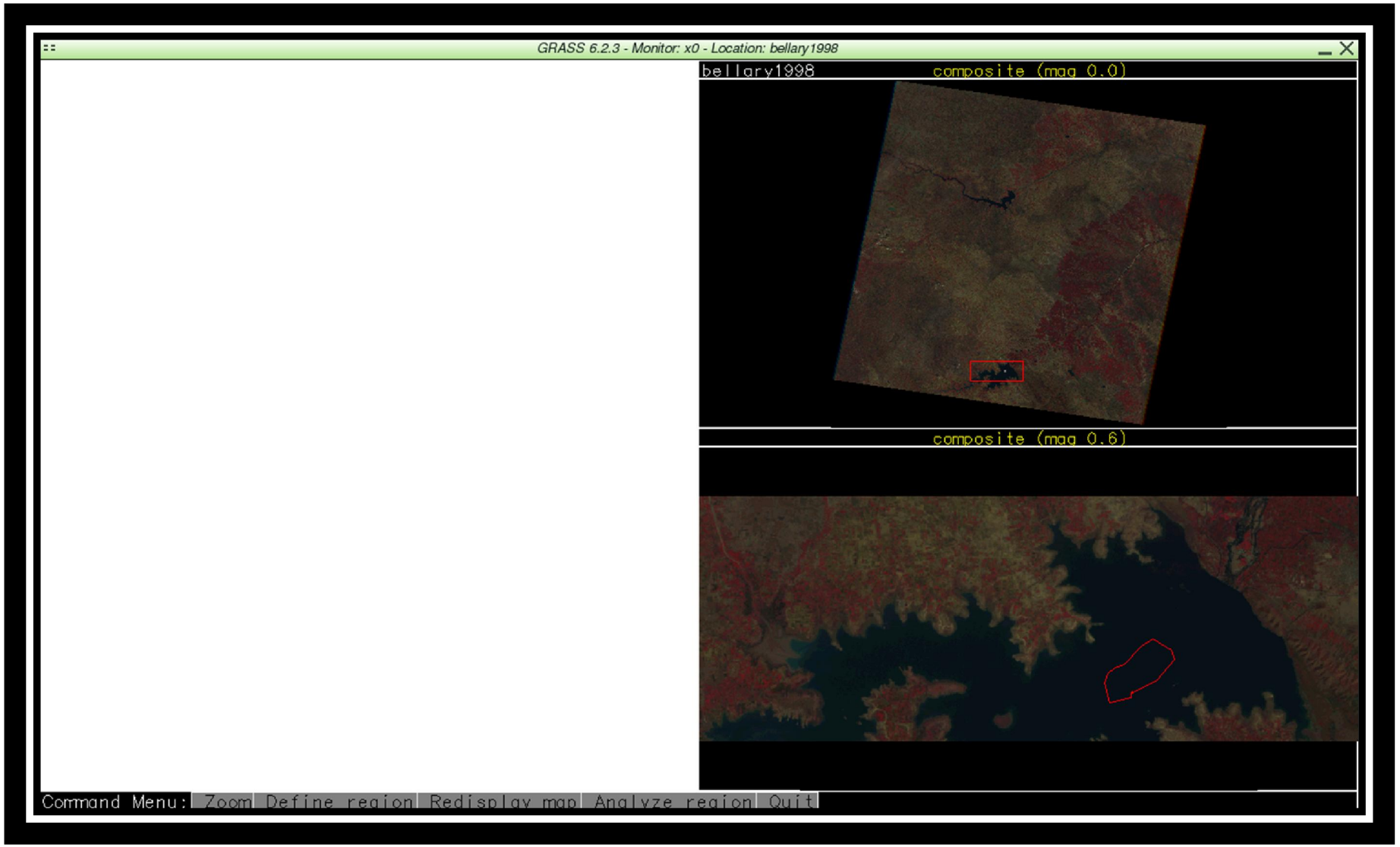
Displaying the FCC image on graphics monitor and taking signatures

- *Command i.class is used.*
- *i.class performs the first pass in the GRASS two-pass supervised image classification process.*
- *i.class is an interactive program that allows the user to outline a region on the screen and calculate the spectral signature based on the cells that are within that region.*



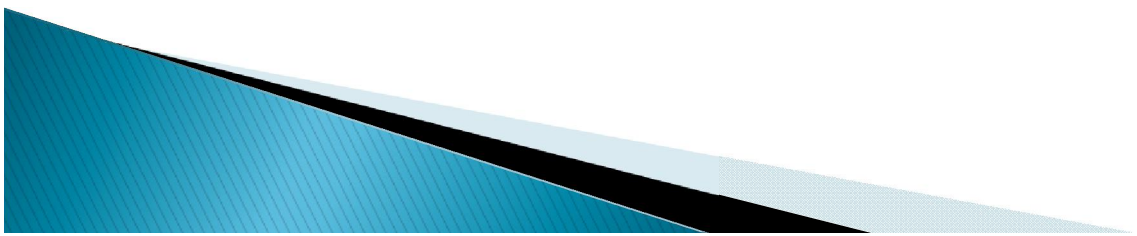


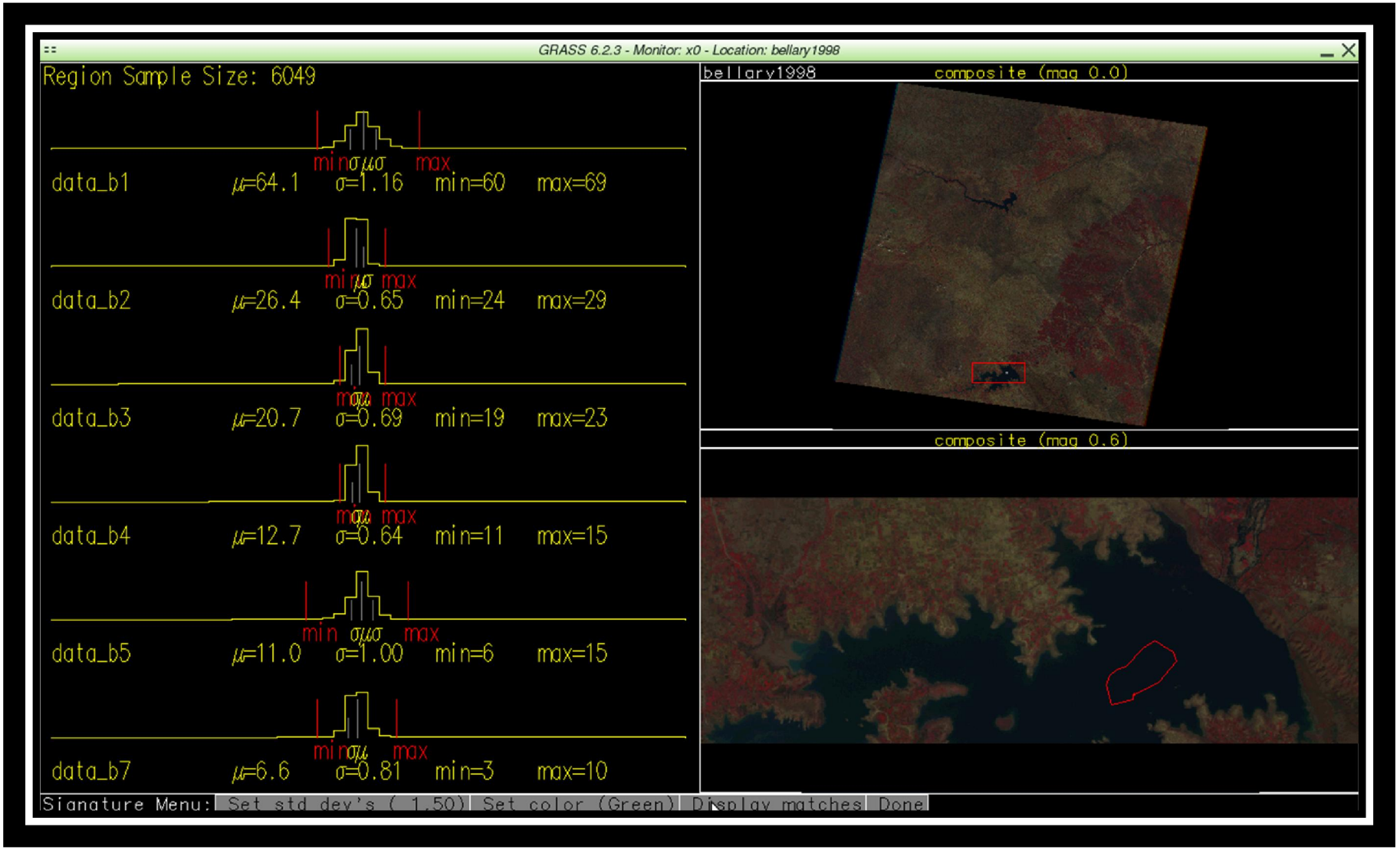
fcc image displayed on graphics monitor



Extracting signature of water

- *The user will be shown a histogram of the region for each image band.*
- *The spectral signatures that result are composed of region means and covariance matrices which will be used for classification.*

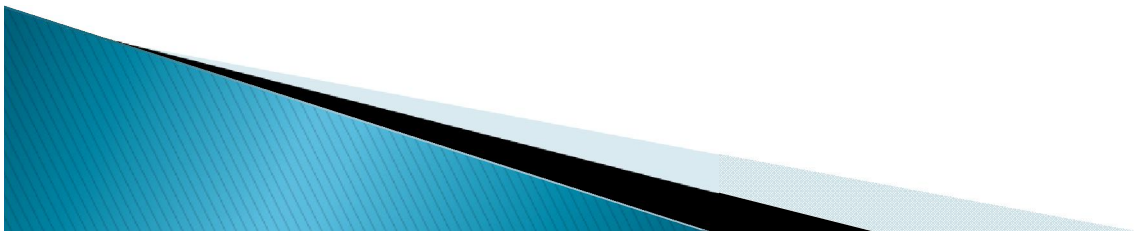




Histogram of all bands

Classifying the image using maximum likelyhood classifier

- *This is the second pass while classifying a image.*
- *Command i.maxlik is used.*
- *Based on spectral signatures obtained by i.class it classifies a image.*



Thank you