Examining Raw Satellite Aerosol Data with HDFLook

Training Workshop in Partnership with EPA

NC
September 29 – October 1, 2014

Applied **R**emote **SE**nsing **T**raining (ARSET) **– A**ir **Q**uality

A project of NASA Applied Sciences

HDFLook

Some basic instructions on the functionality of the HDFLook software.

HDFLook

Start the software by typing:
HDFLook

If the windows are too large to see the control buttons at the bottom of the software window start the software with:

HDFLook – z 80 (80 is just an example
you can use any % size that works)

Make sure "Maps" directory is in /usr/local

- export HDFLOOKMAPS=/usr/local/Maps
- export HDFLOOKTMP=/usr/tmp

HDF_read_files window
will open when you start the software.

Use the buttons near the top
or type the directory you
want in the “Directory” window
to navigate to your file location.

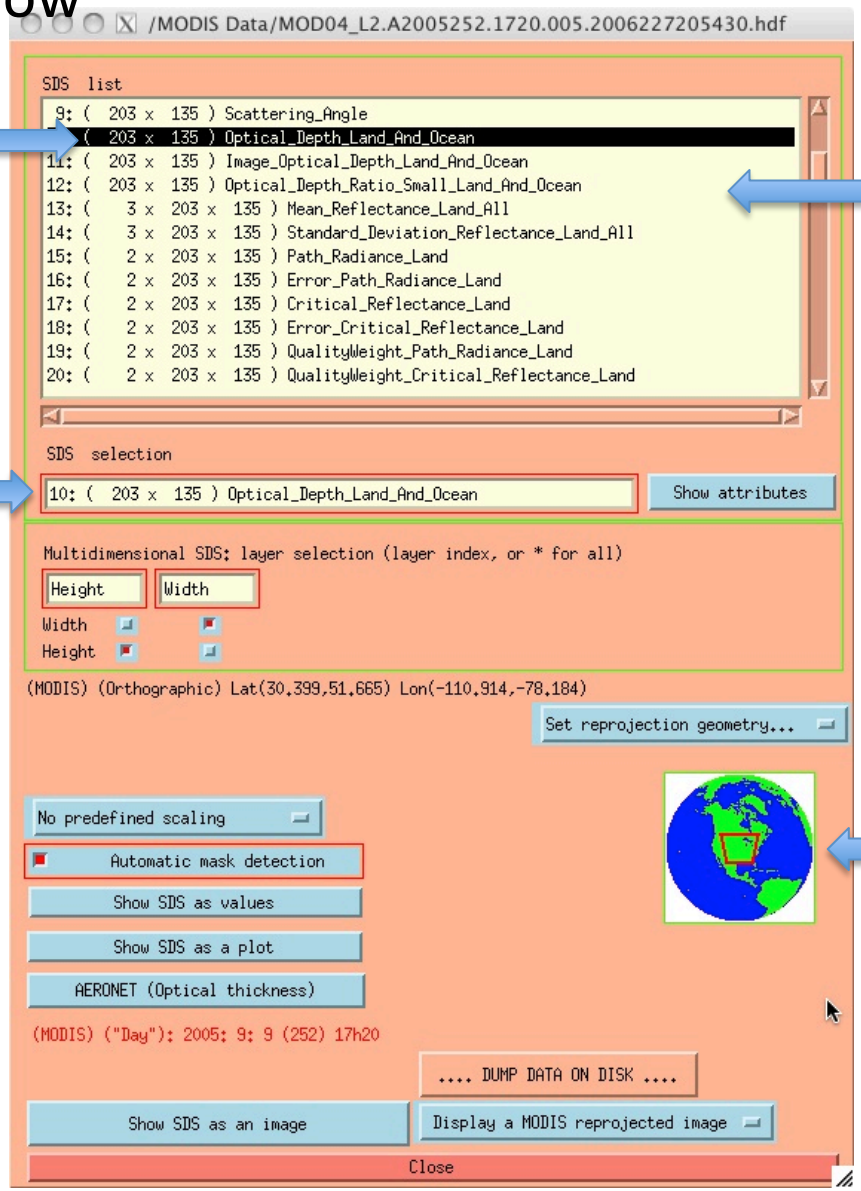
Parameter Selection and Control Window

Parameter Dimensions

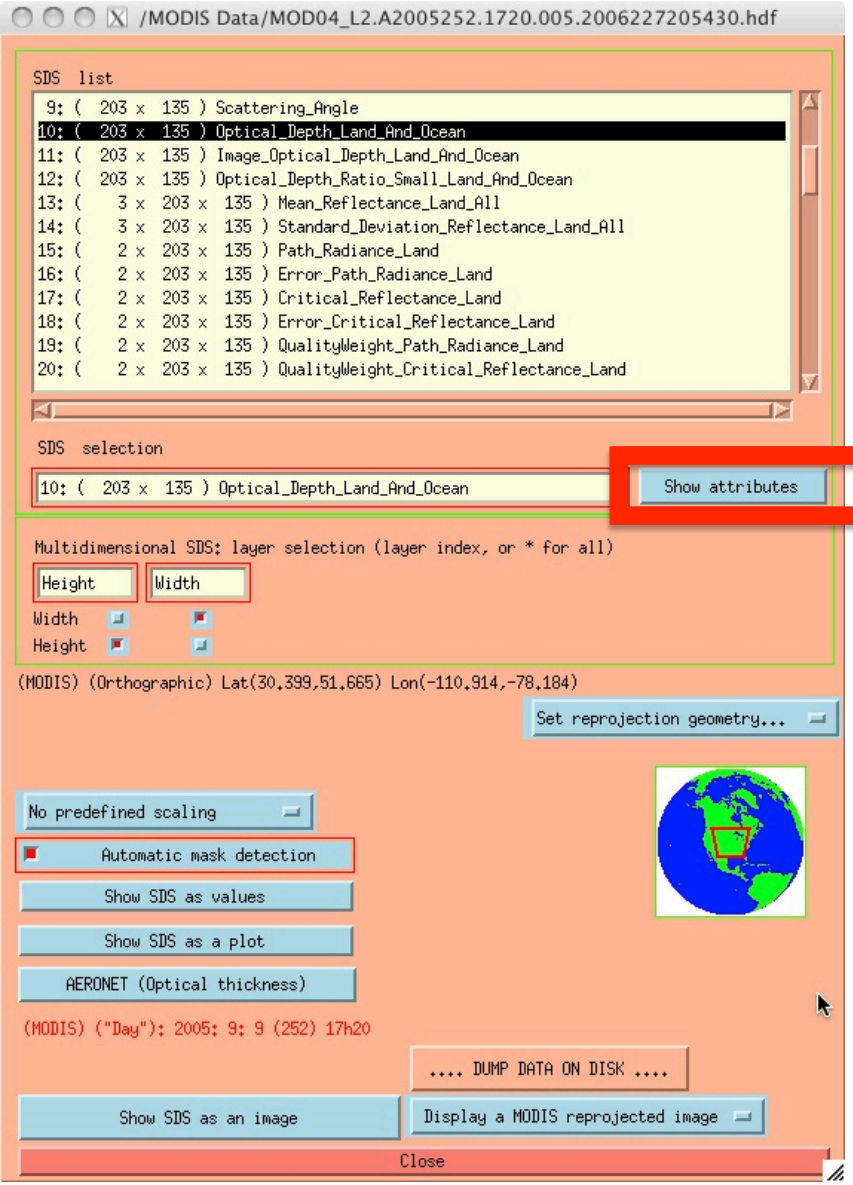
Parameter Names

Dimensions and name of selected parameter

Location of selected file

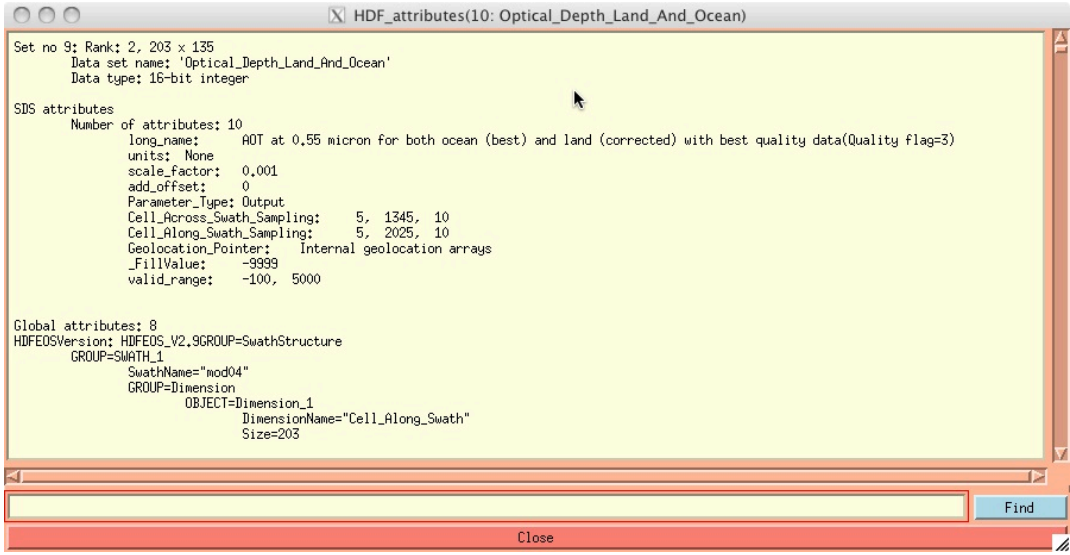


Show Attributes!!!!!!!



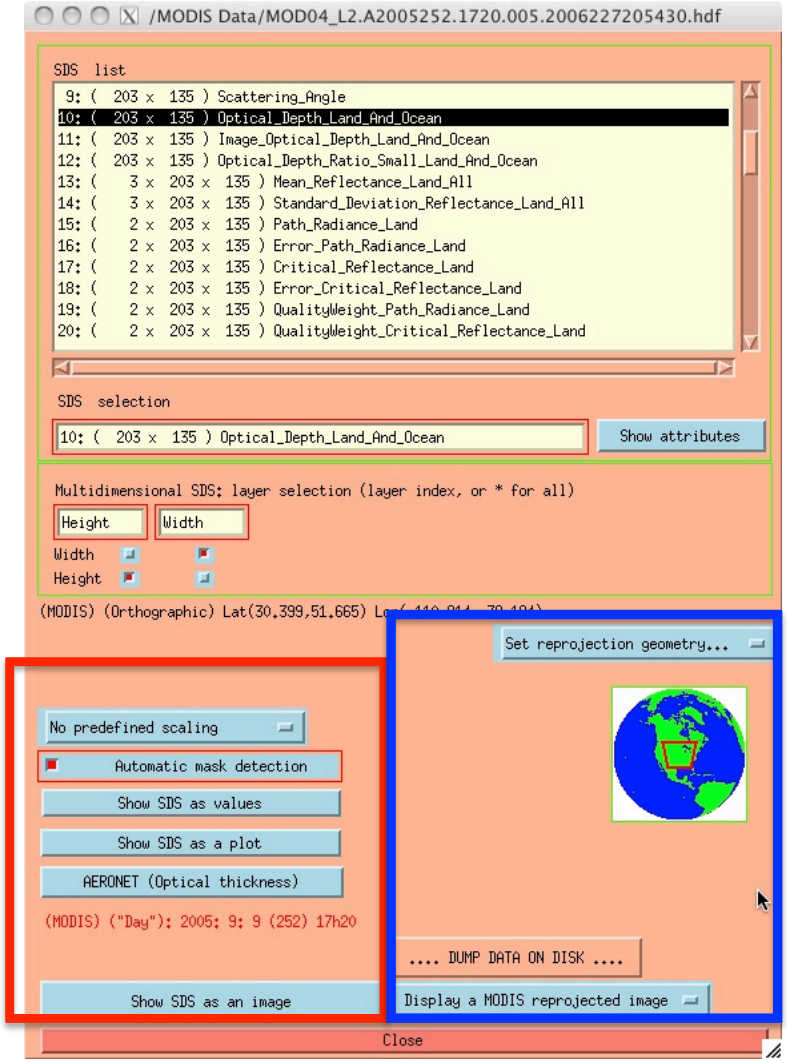
To learn more about the selected parameter
Click "Show Attributes"

This window will open with a description
of the selected parameter



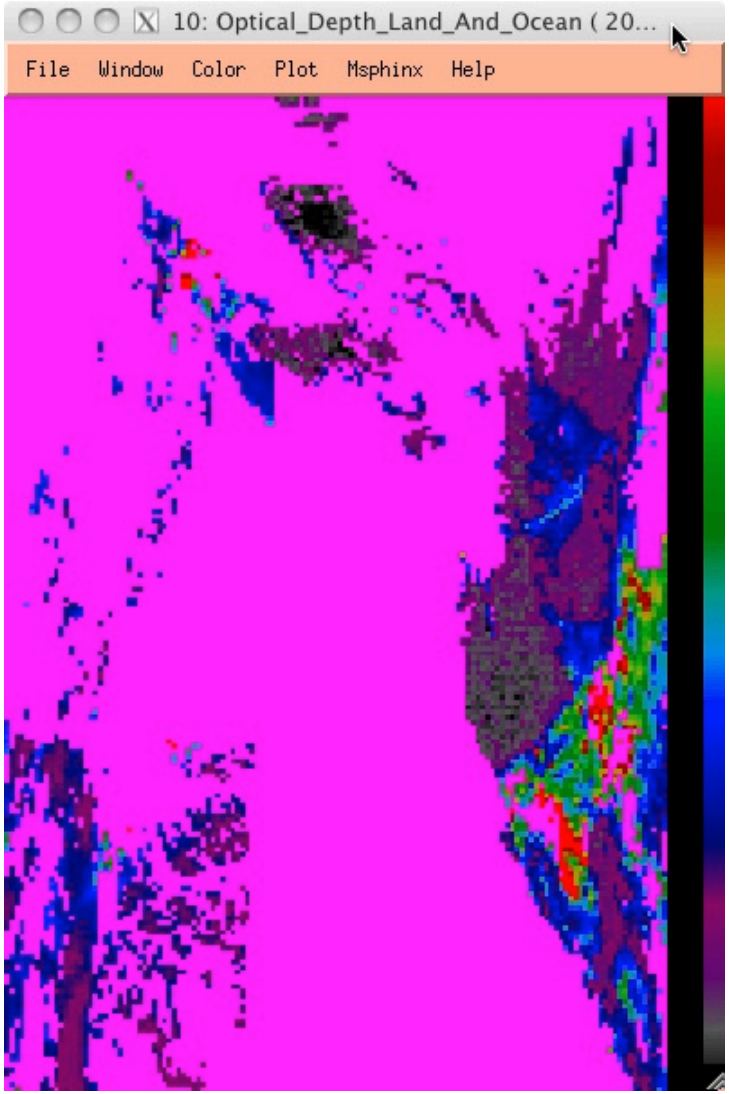
Two Different Display Functionalities

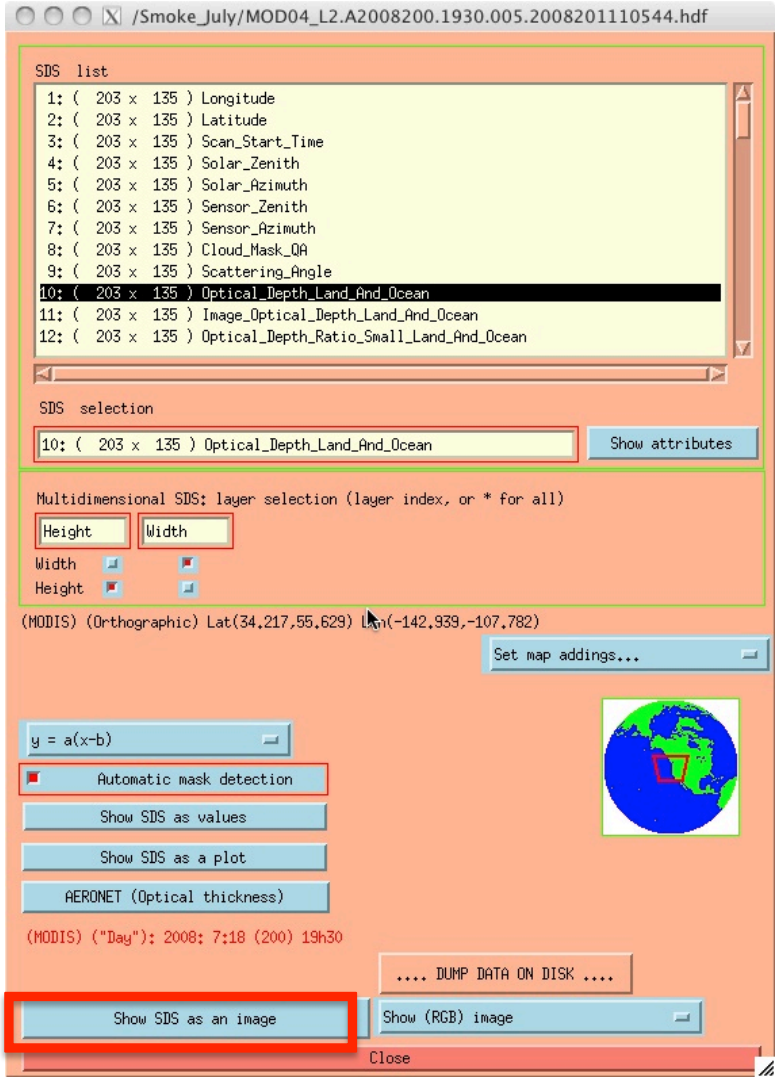
Raw Image Display Controls



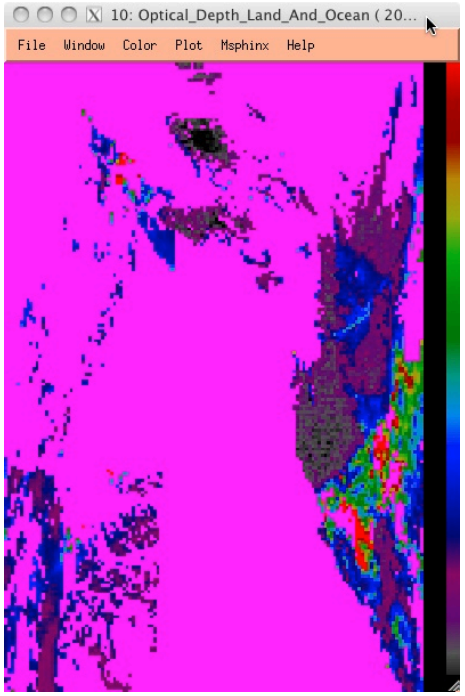
Reprojected Image Display Controls

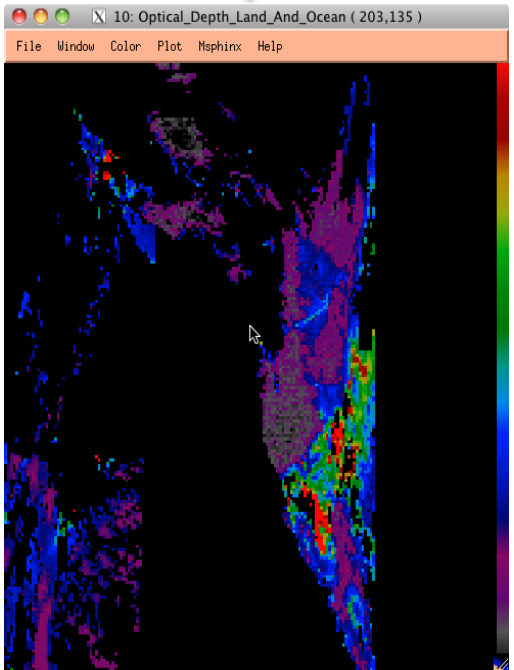
Raw SDS Image Controls



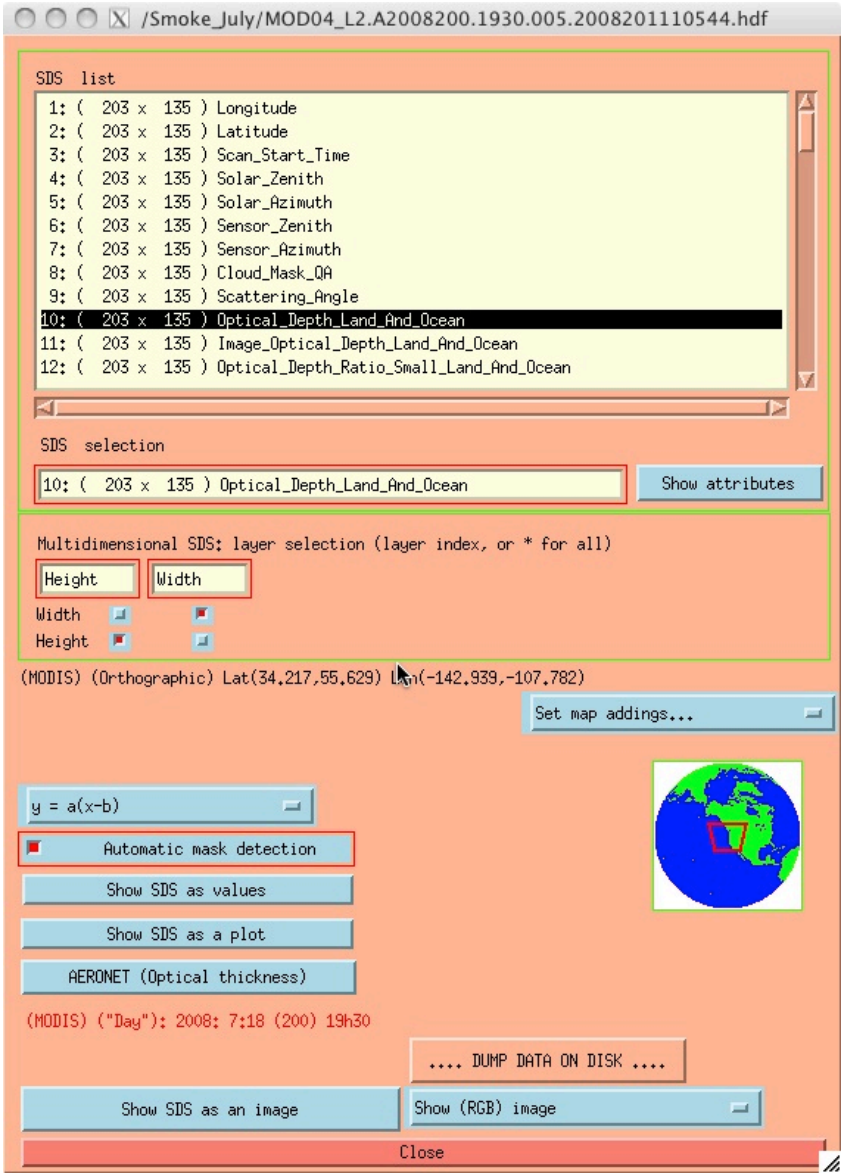


Click here to open a raw (not reprojected) image of the selected parameter.





Click on "Automatic Mask Detection" to change the fill value display from majenta to black



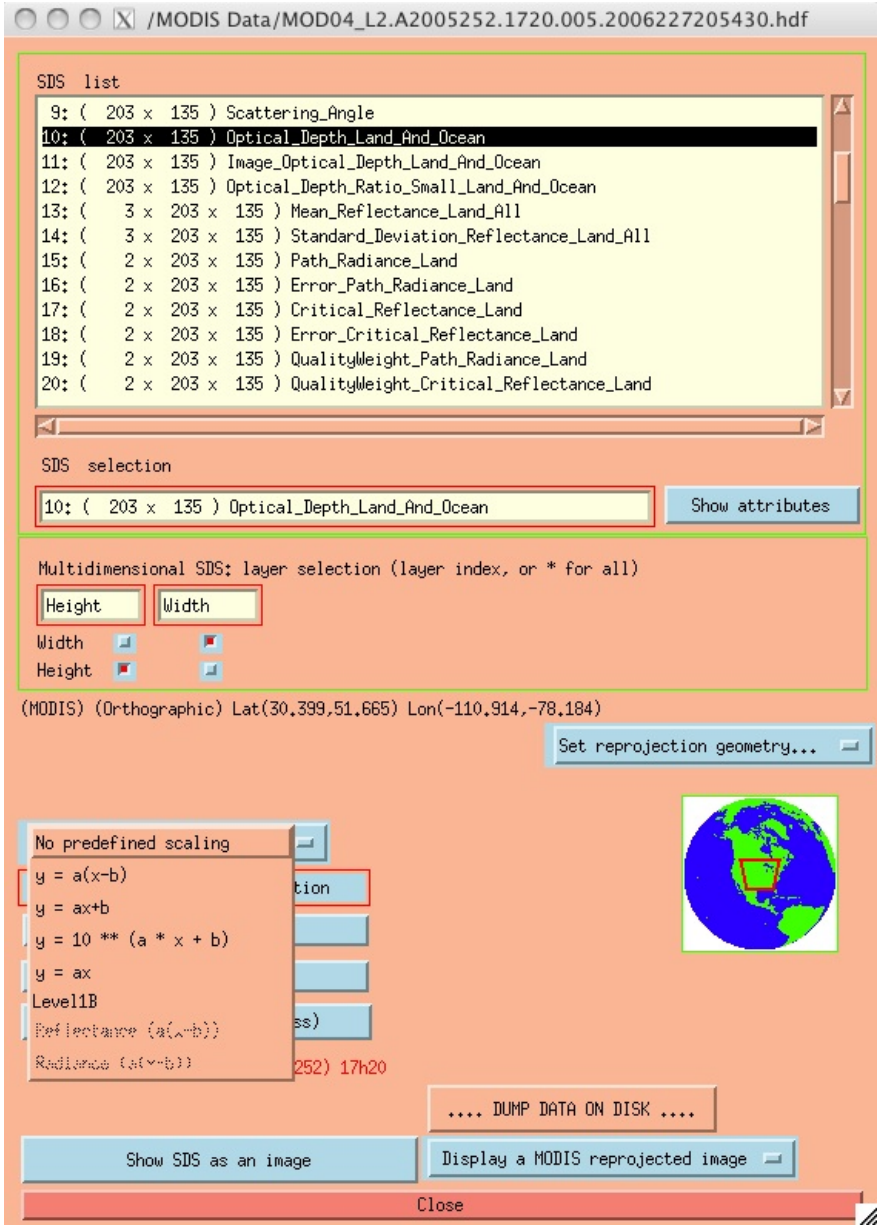
Set Scaling!!

Select any of the following scalings:

y = a(x-b)

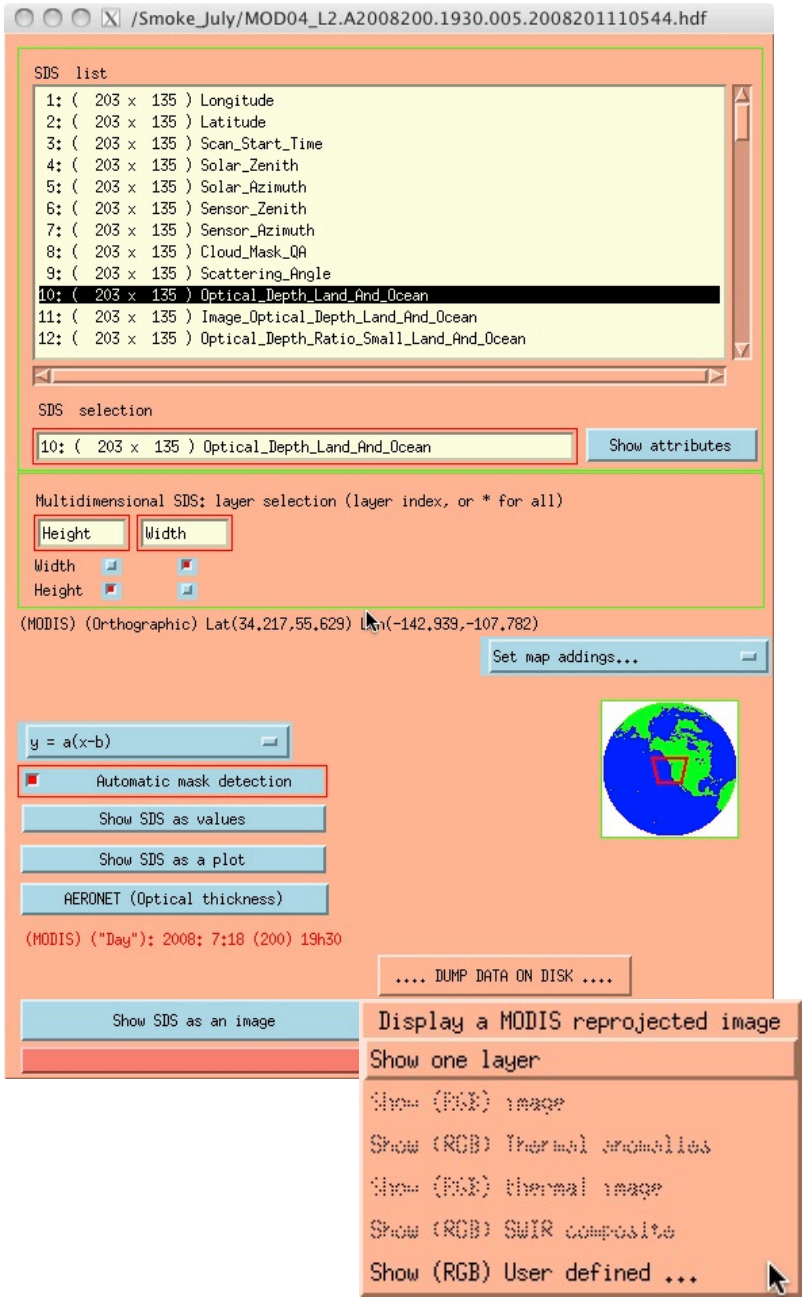
y = ax+b

y = ax



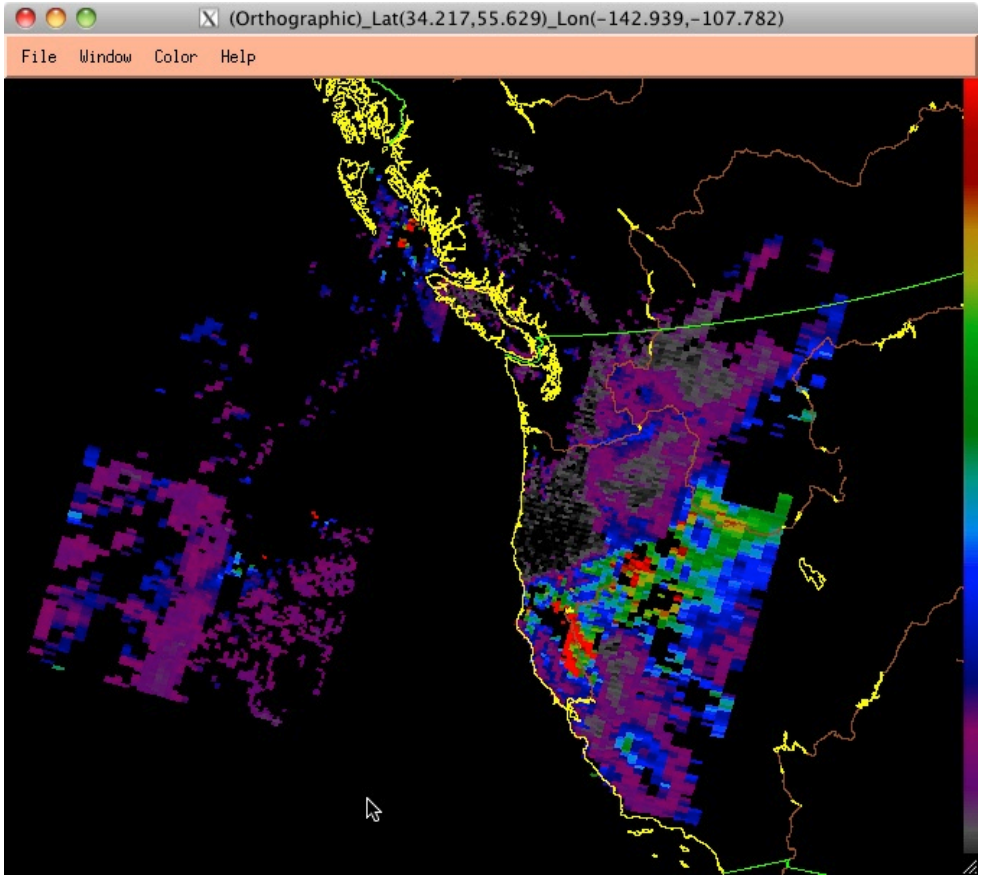
This will not change the display but will change the values from raw numbers to actual parameter values.

Reprojected Image Controls

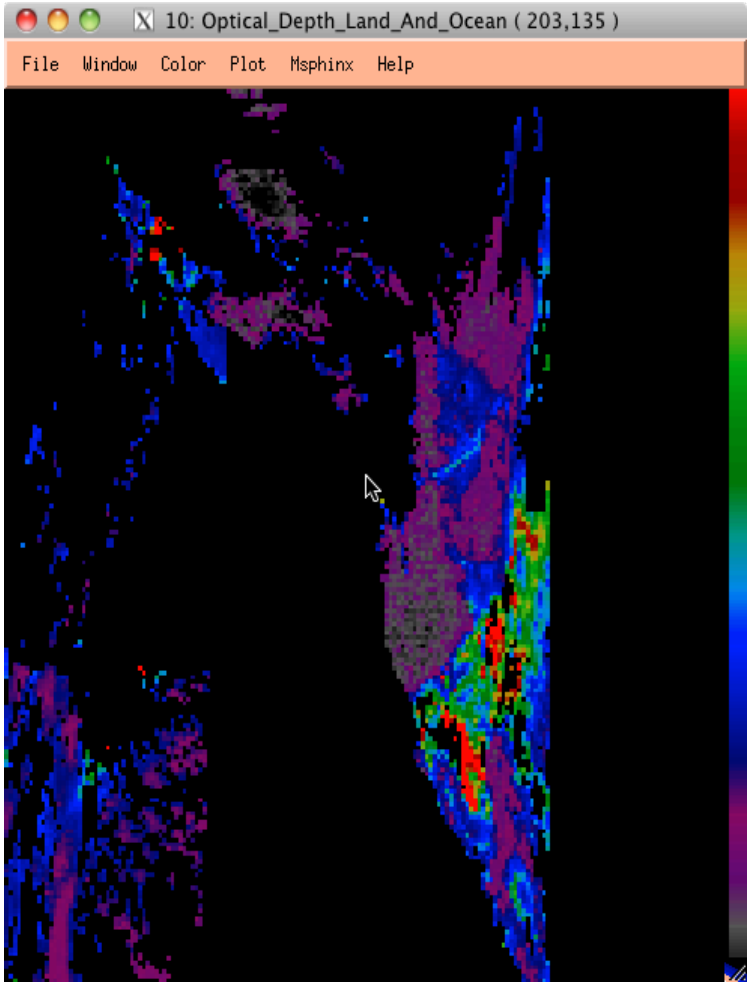


For Level 2 Files:

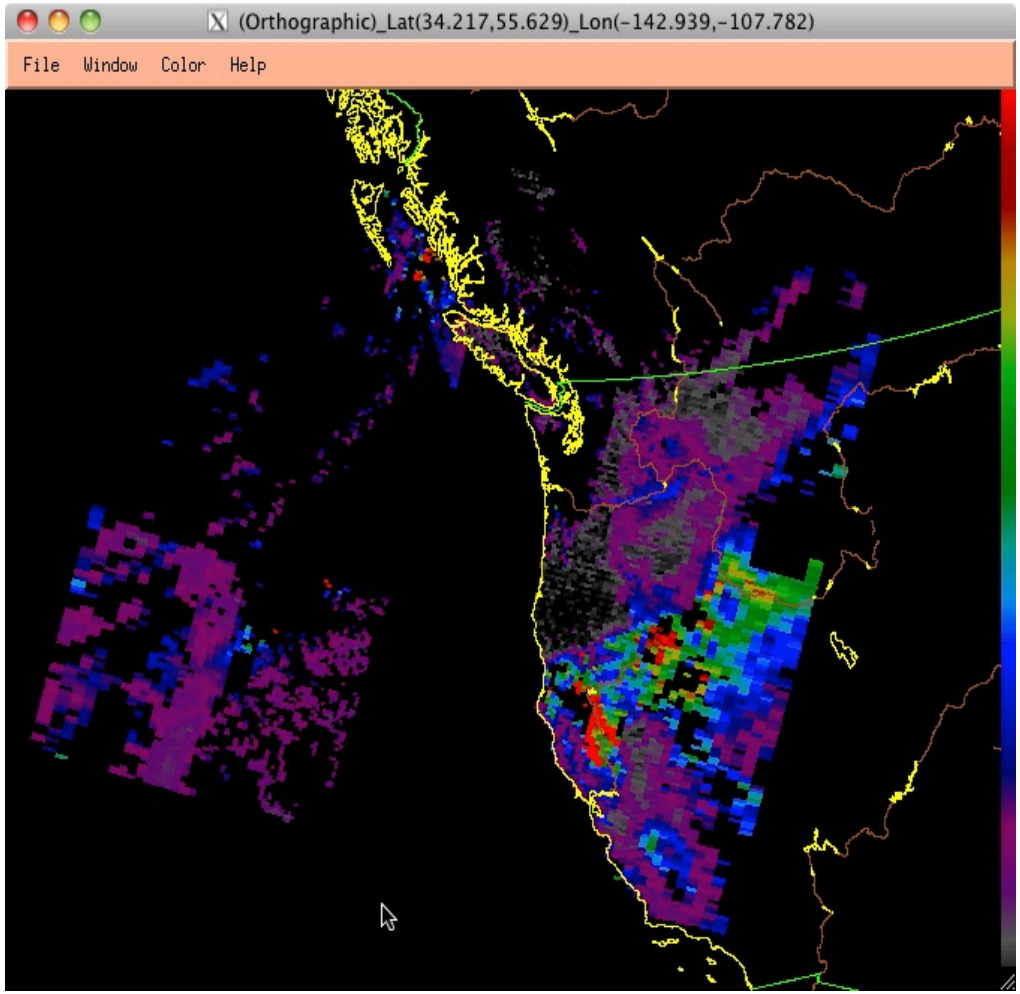
Click and hold the
"Display a MODIS reprojected image" menu
Select "Show one layer"



Raw SDS vs Reprojected Image



The raw image is displayed as simple rows and columns

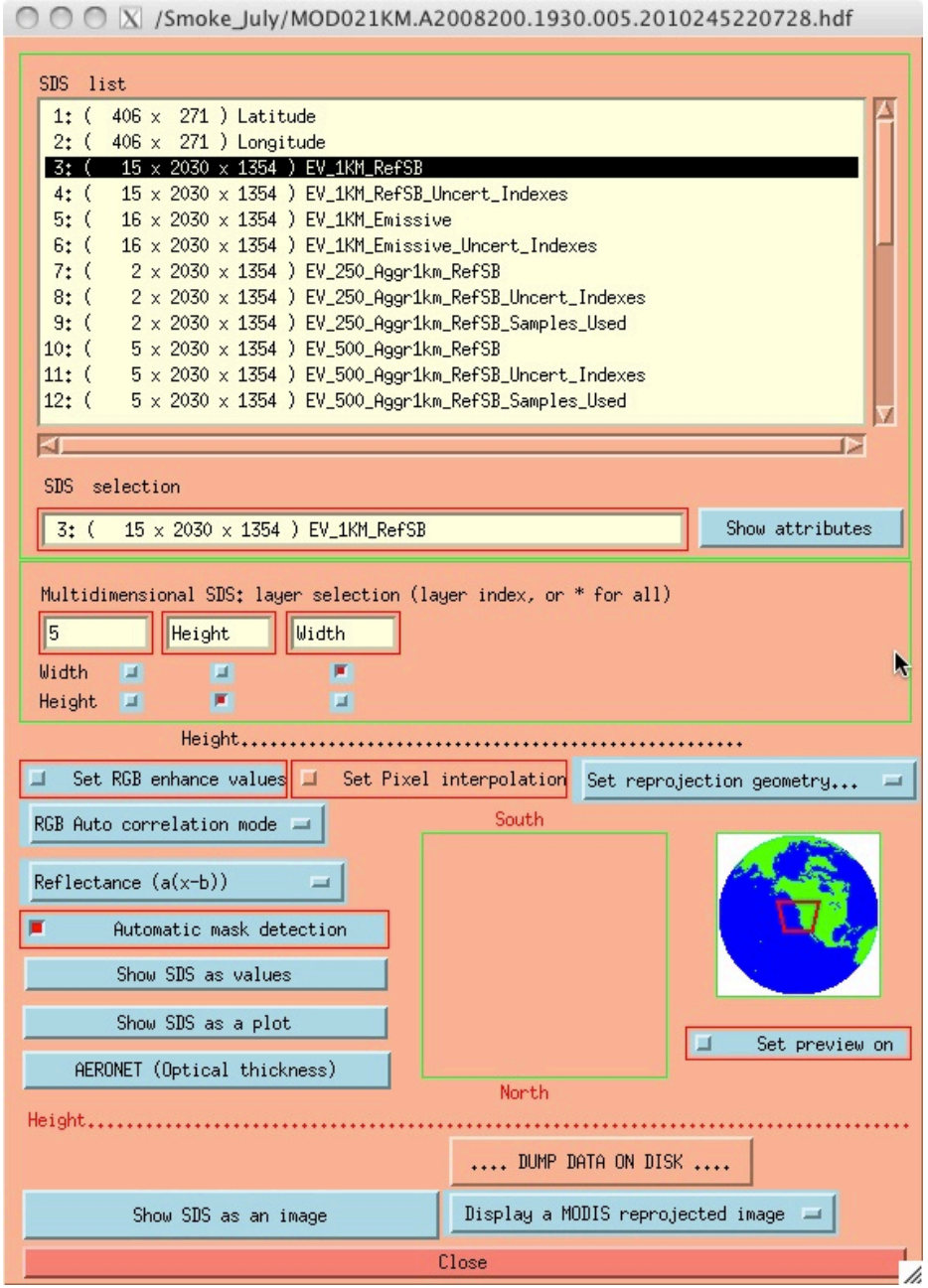


The reprojected image is stretched to reflect real world geography

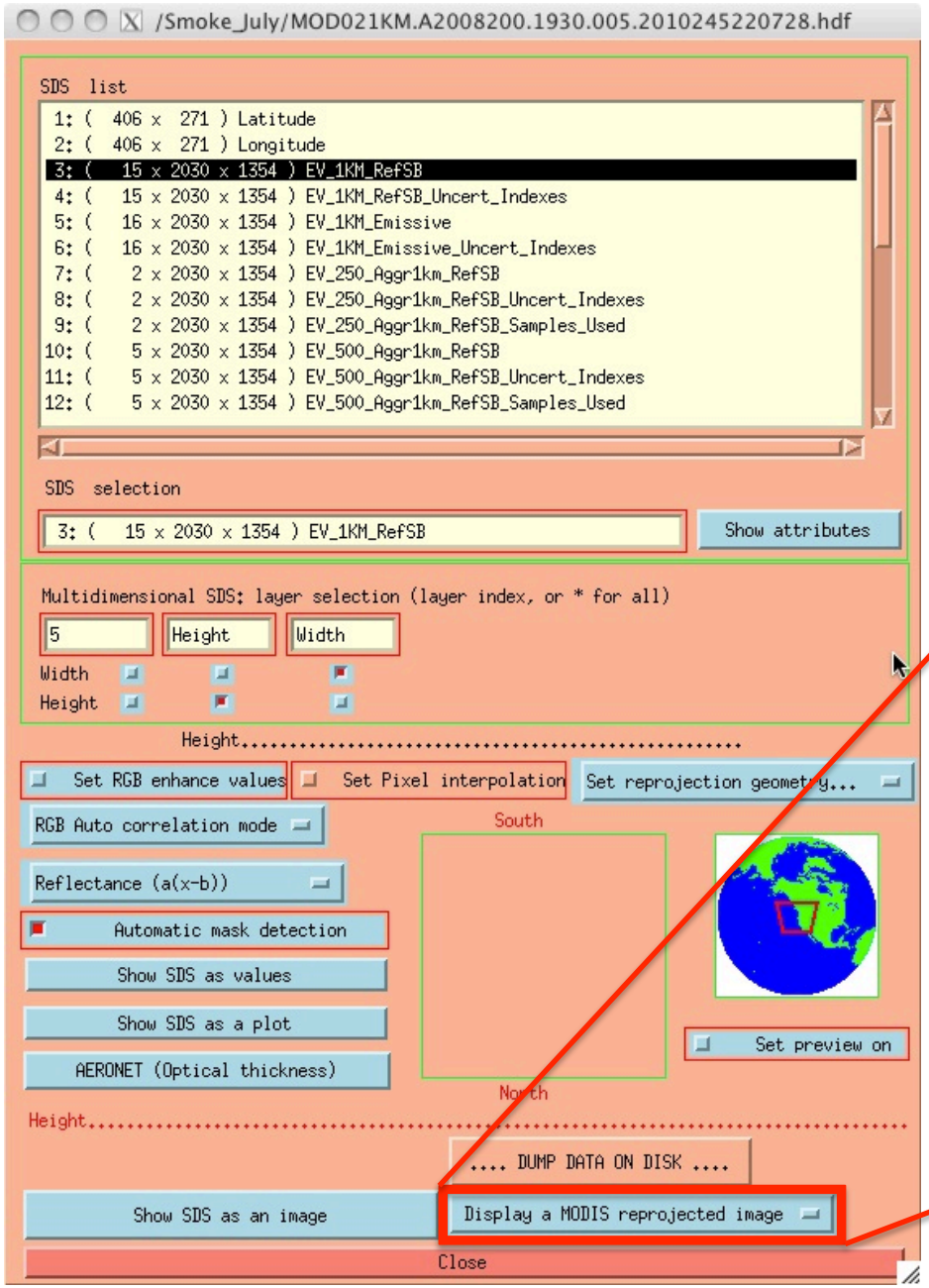
RGB Imagery in HDFLook

Load a MOD02 or MYD02 Level 1B file

Note that several of the available options in the menus will change.

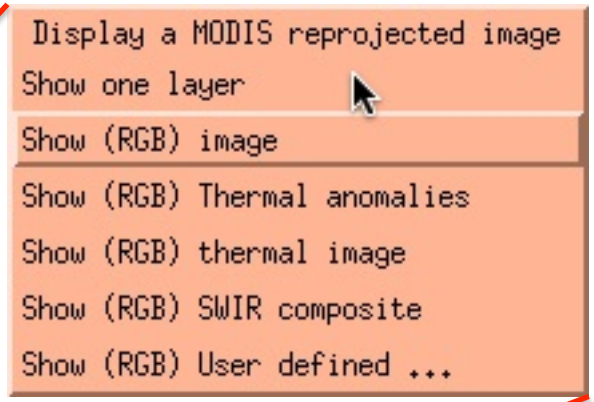


RGB Imagery in HDFLook

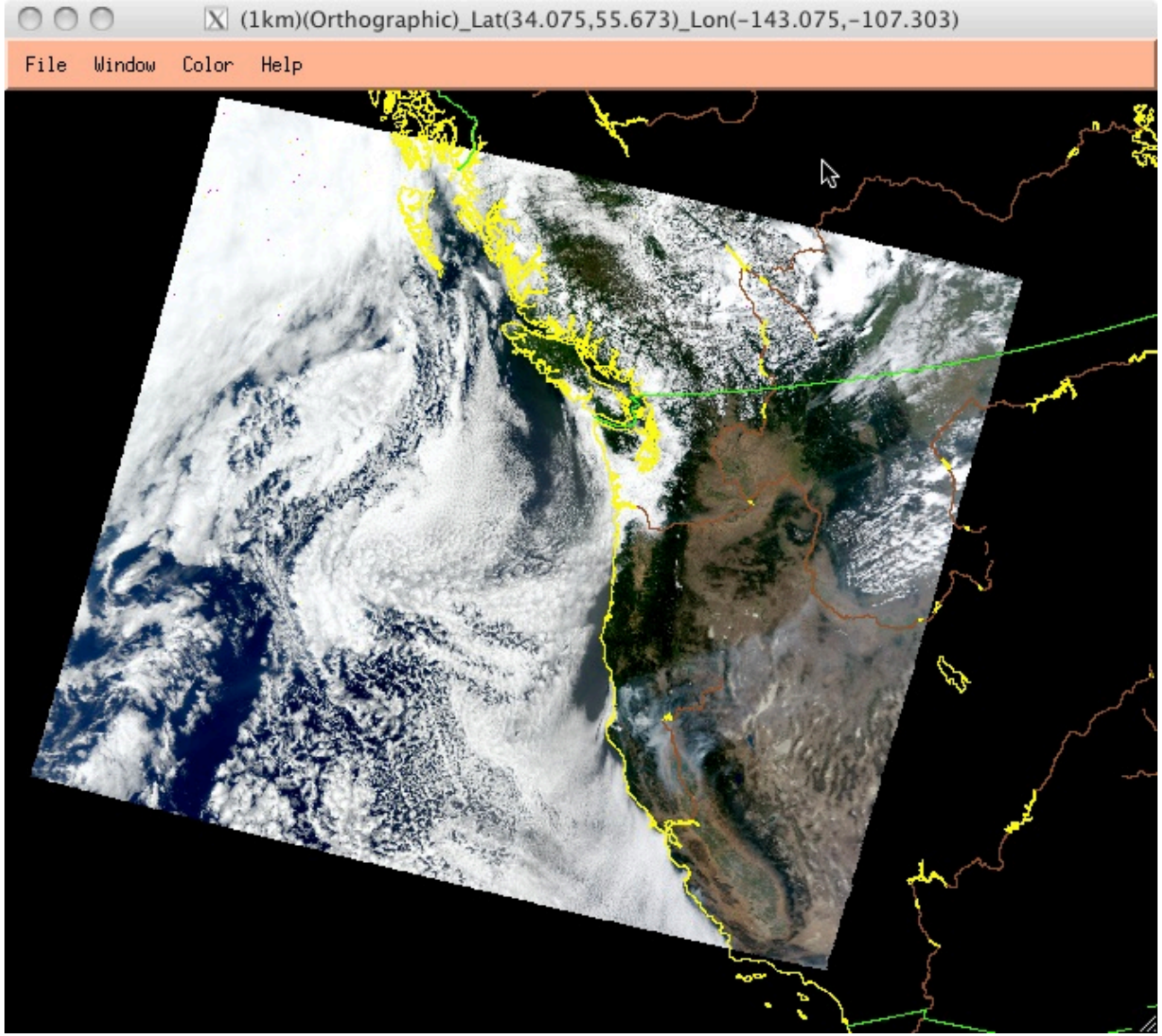


There are several pre-defined RGB options available.

The default RGB is a "true color" image



RGB Imagery in HDFLook



The default RGB is a "true color" image