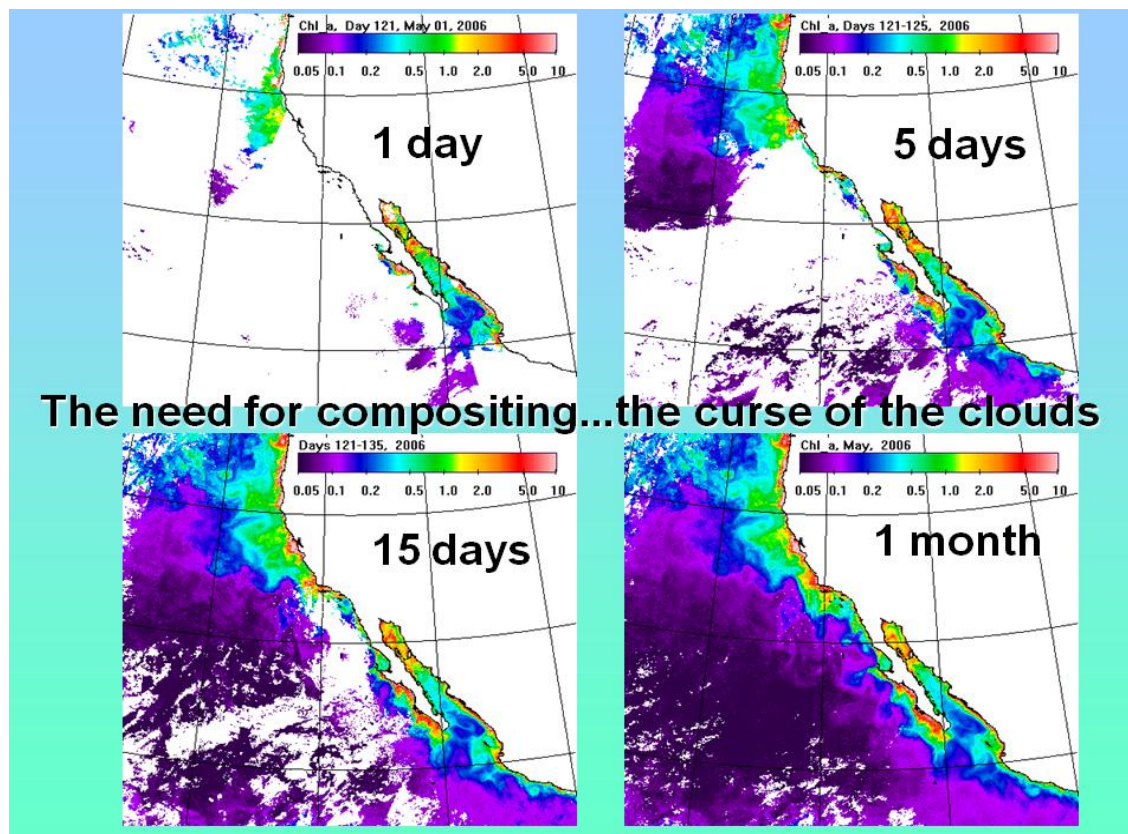




Compositing satellite data

- Please see `\Course\3\Tutorial_Compositing.pdf` on DVD or
- http://www.wimsoft.com/Tutorial_Compositing.pdf



- Compositing is almost unavoidable to get useful images.





Compositing daily CHLO data

Need input data:

- Merge SeaWiFS and MODISA 9-km CHL from
`\Sat\SeaWiFS\L3\Daily\CHL_9` and `\Sat\MODISA\L3\Daily\CHL_9`

Make new directory; Open command prompt

```
mkdir C:\Sat\Merged\L3\Daily\CHL_9 ; cd C:\Sat\Merged\L3\Daily  
wam_composite_2sensors \Sat\SeaWiFS\L3\Daily\CHL_9\S*.hdf  
\Sat\MODISA\L3\Daily\CHL_9\A*.hdf  
move M*.hdf CHL_9
```

- Composite monthly
- Type `wam_composite_month` to see available options
`wam_composite_month CHL_9\M2007*9km.hdf count`
- Will run for 5-10 minutes, get :

```
M2007001_M2007031_chl_comp.hdf  
M2007001_M2007031_chl_count.hdf
```

.....

- Explain the meaning of these files!





Compositing daily CHL data

- Create a new folder ***Month_new*** and move your newly created files to that folder

```
mkdir Month_new
```

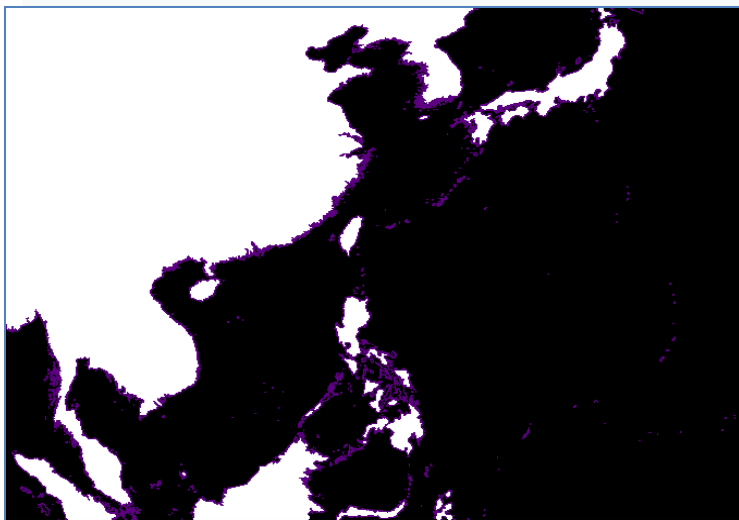
```
move M*.hdf Month_new
```

- Compare the ****comp.hdf*** files with the corresponding files in ***Monthly*** folder: explain the differences: *bpp* (bytes per pixel), scaling, color palette and stretching,..., use *Multi-Difference* in WIM

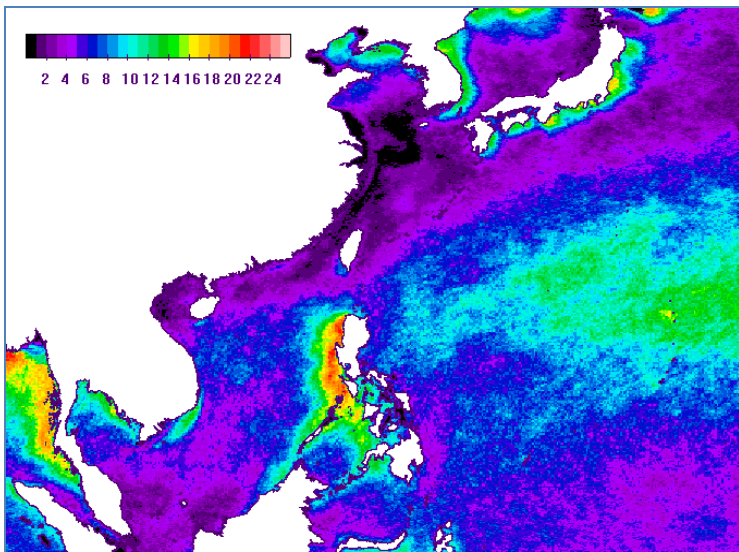




Compositing daily CHLO data



- Target area, coastlines with pixel value 1, land filled with pixel value 255



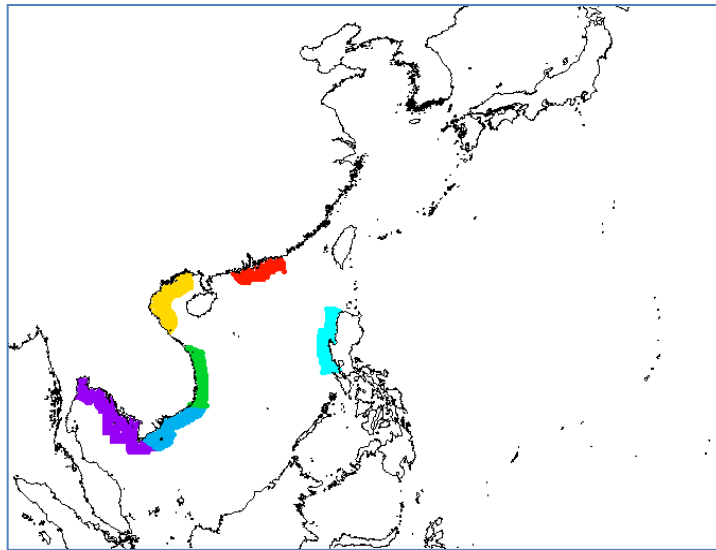
- Color bar with *View – Annotate*, to be overlaid after remapping the image
- Can average (composite) the 12 monthly counts; pick the right valid range!





Compositing daily CHLO data

- Time series of monthly counts with **wam_statist** we need:
- **mask** image (e.g. *Cut* or *File-New*), create overlay with coastlines and land, select your area(s) of interest, i.e. mask(s)



- **List** of images:

```
dir /b /s Month_new\*count.hdf > list_count.txt
```

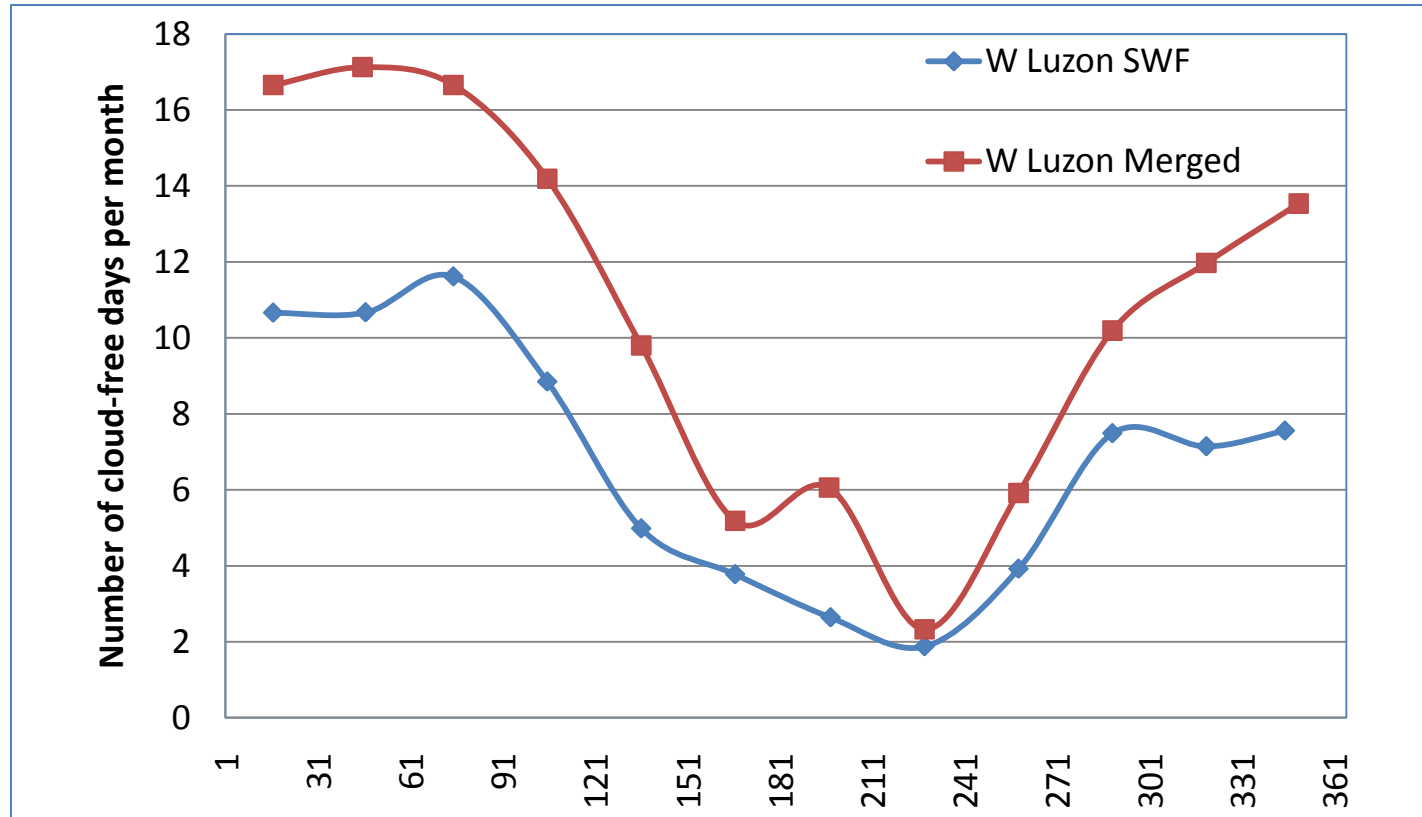
- Save output of **wam_statist** in **ts_counts_merged_mo.csv**
- **sortmasks** **ts_counts_merged_mo.csv** (if > 1 masks)





Compositing daily CHLO data

- *ts_counts_merged_mo.xlsx*



Time series of the average number of valid pixels per month corresponding to SeaWiFS (SWF) and the merged SeaWiFS-Aqua (Merged) data for a mask west of Luzon Island. The horizontal axis shows the day of the year.

