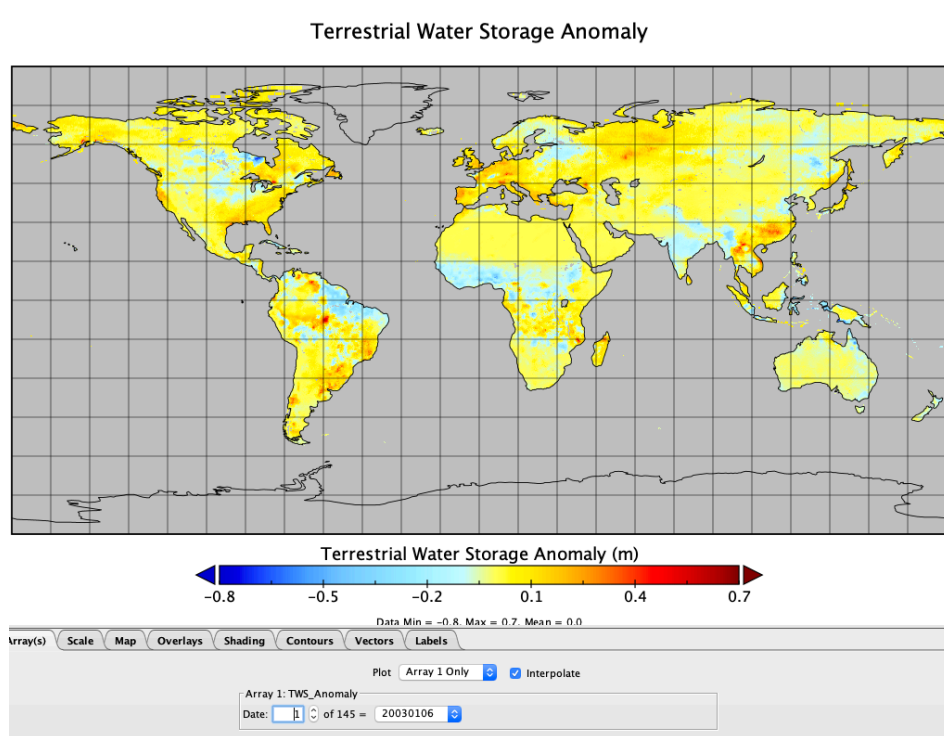**Catchment_TWS_Anomaly_200301_201603.nc**: contains global TWS anomalies derived by removing long-term mean from the TWS estimates as modeled using the NASA Catchment Land Surface Model (Catchment) at an approximately monthly time scale in accordance with the GRACE TWS anomaly retrievals from January 2003 to March 2016. Four variables were included in the netcdf file as listed in the table below.

Variable name	Unit	Description	Dimension
date	-	Date formatted as YYYYMMDD	145
lat	Degree	Latitude (of the 25km EASE Grid [version 1])	586
lon	Degree	Longitude (of the 25km EASE Grid [version 1])	1383
TWS_Anomaly	m	Terrestrial water storage anomaly	586*1383*145

To open the netcdf file, **two methods are provided.**

1. Use Panoply Data Viewer (accessible from https://www.giss.nasa.gov/tools/panoply/) to view the TWS anomaly data: open the netcdf file in Panoply, double click the "TWS_Anomaly" variable and click "create" with the default settings as shown below.

2. Use Matlab to read data from the netcdf file and then create as example plot as shown below.

```
date = ncread('Catchment_TWS_Anomaly_200301_201603.nc','date');
lat = ncread('Catchment_TWS_Anomaly_200301_201603.nc','lat');
lon = ncread('Catchment_TWS_Anomaly_200301_201603.nc','lon');
```

```matlab
TWSA = ncread('Catchment_TWS_Anomaly_200301_201603.nc','TWS_Anomaly');

% plot image
imagesc(lon,lat,TWSA(:,:,1));
set(gca,'YDir','normal','FontSize',12);
xlabel('Longitude [{\circ}]')
ylabel('Latitude [{\circ}]')
cb = colorbar;
set(cb,'FontSize',12)
ylabel(cb,'Terrestrial Water Storage Anomaly [m]','FontSize',12);
```