Producing and interpreting the ZONAL MEAN plot using NASA Giovanni.
https://giovanni.gsfc.nasa.gov/giovanni/

For this assignment you will produce and compare zonal mean plots of monthly rainfall taken from the NASA TRMM dataset.

PART 1 (3pts): part a) produce a zonal mean plot from 1998-2008 for the region between 80-50W, 0-40N. (2pts)
part b) set the y-axis scale to range from 0-300 (1pt)
attach plot to assignment

PART 2 (3pts): part a) produce a zonal mean plot from 2009-2018 for the region between 80-50W, 0-40N. (2pts)
part b) set the y-axis scale to range from 0-300 (1pt)
attach plot to assignment

PART 3 (2pts): Provide an interpretation of the plots. Include in your discussion the following: description of both y and x axis, any geographic references of land types or continents, and a comparison (or contrast) of the two. Provide at least 5 sentences.

PART 4 (2pts): Interpret the provided zonal mean plot (see next page). What are the spatial dimensions (not resolution!!) that the plot was produced from (hint: read plot title)? Why is there a very low minimum? Where is this location where we observe the near zero zonal mean in rainfall?

INSTRUCTIONS START ON PAGE 3. DUE OCTOBER 15th BEFORE CLASS. NO LATE ASSIGNMENTS ACCEPTED. DO YOU OWN WORK. COPIED WORK WILL RESULT IN A ZERO FOR BOTH STUDENTS. EMAIL QUESTIONS AND ASSIGNMENT TO: tallen@cimh.edu.bb

PLOT for part 4:

Zonal Mean of Precipitation Rate monthly 0.25 deg. [TRMM TRMM_3B43 v7] mm/month over 2009-Jan - 2018-Dec, Region 20W, 0N, 60E, 50N
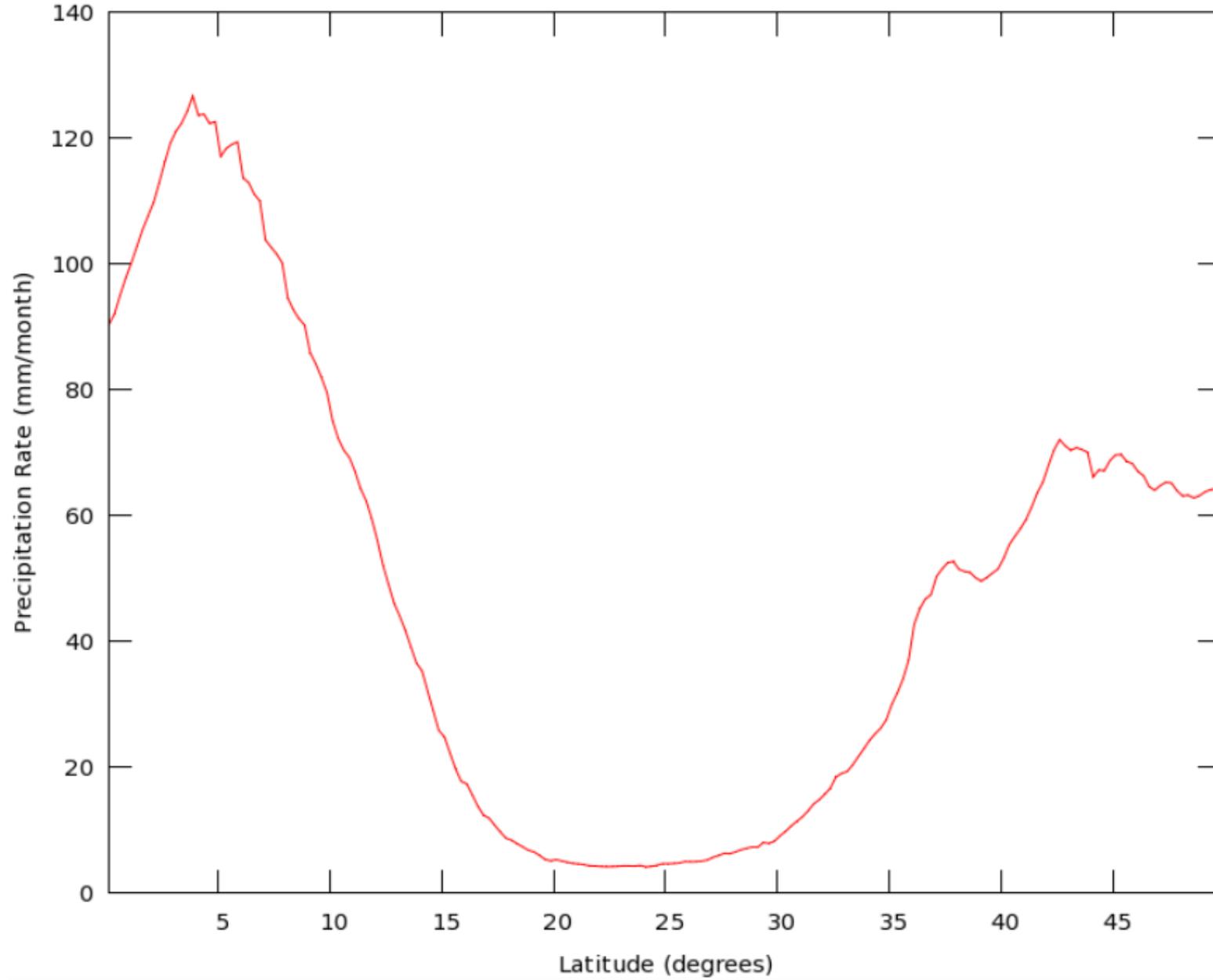
INSTRUCTIONS:

enter date ranges here

select zonal mean option here

enter coordinates here

SELECT TRMM from the PLATFORM menu

SELECT MONTHLY

Select Precipitation Rate (TRMM_3B43_v7)   **Be sure to select mm/mon for the units!!!**

Number of matching Variables: 10 of 1818   Total Variable(s) included in Plot: 1

Keyword : [   ] [Search] [Clear]

	Variable	Units	Source	Temp.Res.	Spat.Res.	Begin Date	End Date	Vert. Slice
☑	**Precipitation Rate** (**TRMM_3B43 v7**)	mm/month ▼	**TRMM**	**Monthly**	**0.25 °**	**1998-01-01**	**2019-07-31**	**-**
☐	Cloud Ice (TRMM_3A12 v7)	g/m^3	TRMM	Monthly	0.5 °	1997-12-01	2015-03-31	0.5 ▼ km
☐	Cloud Liquid Water (TRMM_3A12 v7)	g/m^3	TRMM	Monthly	0.5 °	1997-12-01	2015-03-31	0.5 ▼ km
☐	Surface Convective Precipitation Rate (TRMM_3A12 v7)	mm/hr	TRMM	Monthly	0.5 °	1997-12-01	2015-03-31	-
☐	Graupel (TRMM_3A12 v7)	g/m^3	TRMM	Monthly	0.5 °	1997-12-01	2015-03-31	0.5 ▼ km
☐	Latent Heating (TRMM_3A12 v7)	C/hr	TRMM	Monthly	0.5 °	1997-12-01	2015-03-31	0.5 ▼ km
☐	Precipitation (Rain) (TRMM_3A12 v7)	g/m^3	TRMM	Monthly	0.5 °	1997-12-01	2015-03-31	0.5 ▼ km
☐	Precipitation (Snow) (TRMM_3A12 v7)	g/m^3	TRMM	Monthly	0.5 °	1997-12-01	2015-03-31	0.5 ▼ km
☐	Precipitation Rate (TRMM_3A12 v7)	mm/hr	TRMM	Monthly	0.5 °	1997-12-01	2015-03-31	-
☐	Rain Rate (TRMM_3A12 v7)	mm/hr	TRMM	Monthly	0.5 °	1997-12-01	2015-03-31	-

Select Plot Data

HOW TO SET THE Y-AXIS RANGE:

RMM TRMM_3B43 v7] mm/month over
N, 0N, 50W, 40N

⬇ Image
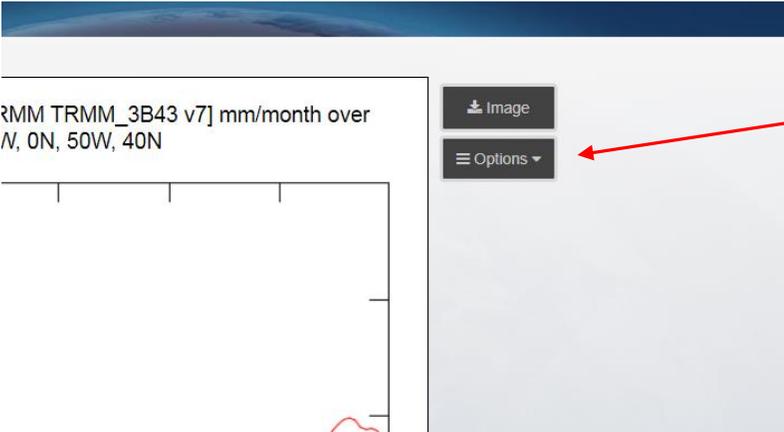
☰ Options ▼

1. Click on the OPTIONS pull down menu

⬇ Image

☰ Options ▼

⚙ Re-Plot Options

☑ Show title
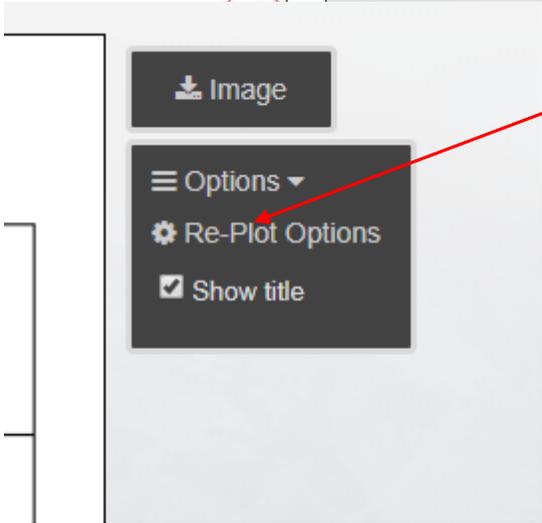
2. Click on the Re-Plot Options pull down menu

[TRMM TRMM_3B43 v7] mm/month over

Plot options ✖

Zonal Mean of Precipitation Rate monthly 0.25 deg.
[TRMM TRMM_3B43 v7] mm/month over 2009-Jan -
2018-Dec, Region 80W, 0N, 50W, 40N

Y Axis

Label

Precipitation

Range

Min

0

Max

300

3. Enter the new minimum and maximum, then select Re-Plot

Re-Plot   Reset to defaults