Exercise: Monitoring a Recent Tropical Cyclone

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Exercise Objective

• Monitor an approaching storm using:
  – NHC, CPCH, JTWC, and GDACS Reports
  – MODIS Images
  – GPM Precipitation
  – GEOS-5 Weather Data and Forecast
  – Case Study: Recent Tropical Cyclone Flamboyan
Check for Tropical Disturbance, Depression, or Storm

1. Go to the following sites and note if there is any current tropical disturbance, depression, or storm present in any of the tropical storm regions:
   - [https://www.nhc.noaa.gov/](https://www.nhc.noaa.gov/)
   - [http://www.prh.noaa.gov/cphc/](http://www.prh.noaa.gov/cphc/)


3. Click on **Flamboyan-18** under Tropical Storms

4. Study the **Event Summary** and mark the following information:
   - Dates for the storm
   - Affected countries
   - Maximum wind speed
   - Storm category

5. If you are looking for a storm that took place in the past:
   - Go to: [http://www.gdacs.org/Alerts/](http://www.gdacs.org/Alerts/)
   - Click on **Search**
   - Select **Cyclone**
   - Search for the storm by date
Monitor Tropical Cyclone Flamboyan-18 Using MODIS Imagery

1. Go to https://worldview.earthdata.nasa.gov/
2. Turn off all layers, but keep the Place Labels and Coastlines/Borders/Roads layers on
3. Zoom to the ocean where Flamboyan-18 formed
Monitor Tropical Cyclone Flamboyan-18 Using MODIS Imagery

4. Go to the year-month-date section and select 2018 Apr 27
5. Turn on the Corrected Reflectance (true color) layer for Terra/MODIS
6. Using the arrows by the dates, loop through April 27, 28, 29, 30, & May 1
7. Repeat step 6 for the Aqua/MODIS and Suomi NPP/VIIRS Layers

- Can you see Flamboyan-18?
- Which direction did it move after April 27?
Monitor Tropical Cyclone Flamboyan-18 Using Precipitation Data

8. Go to https://svs.gsfc.nasa.gov/cgi-bin/details.cgi?aid=4285
   - This will show you an animation of global precipitation for the last seven days
9. Click on the map to start the animation
10. Examine the precipitation data associated with Flamboyan-18 between April 27 – May 1
11. Watch how a tropical disturbance becomes Flamboyan-18
Explore GEOS-5 Weather Data

11. Go to [https://fluid.nccs.nasa.gov/weather/wxmaps/?one_click=1&tau=000&stream=G5FPFC&level=850&region=sevseas&fcst=20180428T120000&field=wspd](https://fluid.nccs.nasa.gov/weather/wxmaps/?one_click=1&tau=000&stream=G5FPFC&level=850&region=sevseas&fcst=20180428T120000&field=wspd)

12. Under REGIONS, select Seven Seas

13. Select FORECAST INITIAL TIME and FORECAST LEAD HOUR

14. Explore VARIABLES: Precip & SLP and Wind Speed

Note: this portal can provide 10-day forecast data
Discussion and Q/A