MEA 498/598: National Weather Service Student Internship
Week 2 Worksheet - Focus on upper air, satellite and radar observations

Name _____ Date _____
Shift _____ Mentor _____

1) Discuss the upper air program and talk about the upper air soundings taken at KGSO. We have contract observers in Greensboro who collect the upper air data for us. You can learn more about the upper air program at: https://www.weather.gov/upperair/ and http://www.weather.gov/rah/virtualtourballoon

Have your mentor:

- Show the MANGSO and SGLGSO data in AWIPS
- Demonstrate how to view the Skew-T plot in AWIPS
- Show the upper air charts (850 mb, 500 mb, etc.)

What other locations in the Carolinas and Virginia take upper air observations?

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2) Discuss satellite data that is available in AWIPS. Have your mentor:

- Show you the satellite products in AWIPS including Infrared, visible, and water vapor.
- Identify a short wave trough, long wave trough, and upper level jet on the water vapor imagery.

More about satellite meteorology at: http://cimss.ssec.wisc.edu/satmet/modules/intro/intro1.html

3) Discuss the WSR-88D radar. Complete the radar checklist and discuss the components of the radar RDA/RPG. http://www.weather.gov/rah/virtualtourradar

What is the difference between the RDA and the RPG?

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4) Conferring with the AFD and the operations staff, what is the forecast problem of the day? How might observations from the upper air soundings, satellite, and radar be used to help with the forecast problem of the day?

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5) With your mentor, update the WRKSYN (synopsis) product in AWIPS. Keep in mind the synopsis is not an AFD, but rather a general description of the overall synoptic pattern and impact across the region. The length is typically 2 to 3 sentences, don't get too detailed, and understand that the primary audience is the NWR listener but the product is also ingested into the AFD synopsis and the Fire Weather Product.

6) Work with your mentor and create a social media post. There are a wide range of topics that can be used including…

- a short term forecast update (fog will lifting, skies will be clearing, etc.)
- a local climate topic
- a simple forecast summary of the next few days
- an anniversary of a noteworthy weather event

7) Have your mentor discuss GR Level X radar software and demonstrate how we use it.

8) Spend any extra time exploring AWIPS
- load some water vapor or infrared satellite imagery and overlay lightning data in D2D
- load some local krax radar products in AWIPS

file:///C:/Users/jonathan.blaes/Downloads/handout.week2.doc.pdf