

## AOSC 201 - CSS 3426

### Extra directions for Lab 11: Forecasting - Numerical Weather Prediction

You will be using the following website <http://mag.ncep.noaa.gov/> for many questions. Open up a few tabs of this site because you will be doing some side-by-side comparisons of forecasts.

#### Question 2

Use [www.wunderground.com](http://www.wunderground.com) instead.

#### Question 3

Select "Large" size after you click GFS. Not necessary, but makes the map larger.

#### Question 4

Select "3 Day" instead of "Loop All."

#### Question 5

In an extra browser tab, follow the steps written in question 3 in the manual, but select NAM for Model Type instead of GFS this time. Do the 3 Day loop for both side-by-side and note differences.

**\*Figure 2 is explained on page 76 and is unrelated to question 5.**

#### Question 6

Go to <http://www.nws.noaa.gov/mdl/synop/products/bullform.all.php#Maryland>

Select "**Baltimore (KBWI)**", NOT College Park. Scroll to the bottom or click the light blue arrow, then click "Submit."

Probabilities in the MOS table are shown as digits, but are actually percentages.

#### Question 7

Make a chart like this to organize your information. Look at the very last column of each MOS table to fill in the information. High temperature and low temperature must be found by looking at the X/N row for the last day on the MOS map, not from the last column.

	GFS MOS (MAV)	NAM MOS (MET)
High temp		
Low temp		
Precipitation		
Wind		
Cloud cover		

**Question 8**

Make a chart like this to organize your information and compare.

	High temp	Low temp
MET		
MAV		
Forecast ( <a href="http://www.weather.gov">www.weather.gov</a> )		

**Question 9**

In an extra browser tab, follow the steps written in question 3 in the manual, but select GEFS-SPAG for Model Type instead of GFS this time. Click on **500\_516\_558\_ht**. Click “Loop All.” Click “stop” and use the arrow to manually progress through the model.

**Question 10**

Ignore the manual. Answer, “Roughly how many days until the forecast is meaningless (spaghetti plot simply devolves into a jumbled mess of lines)?”

**Question 11**

In an extra browser tab, follow the steps written in question 3 in the manual, but select GEFS-SPAG for Model Type instead of GFS this time. Click on one of the “mslp” maps, doesn’t matter which one. Click “Loop All.” Click “stop” and use the arrow to manually progress through the model.

**Question 12**

Go to [https://weather.gc.ca/ensemble/naefs/cartes\\_e.html](https://weather.gc.ca/ensemble/naefs/cartes_e.html) instead of the website the manual tells you to go to.

Fill in your answers in the box on the next page, but the left column of the box should be:

Rain (Chart type: Precipitation)
Surface Temperature (Chart type: Surface Temperature)
Wind at 200 hPa (Chart type: Wind at 200 hPa)
Surface Wind Speed (Chart type: Surface Wind Speed)