

Images from Polar WRF

Students may elect to study temperature or pressure, or both, depending on their areas of interest. Some students may be particularly interested in viewing the [animated pressure maps](#) on the BPRC website. The animation is only available for the current day, but it can be used to illustrate general features of air circulation in the Arctic region and may serve as an interest "hook" if a particularly high- or low-pressure area is active in the region at the time.

The Polar WRF model simulates a new 96-hr forecast every 12 hours. Images generated at each update (twice daily) are assigned to folders on the BPRC server. As a result, there are two folders for any given date in the archive. In the screenshot below, arrows point to the two folders generated for data from October 29, 2012.



Each of these folders contains a set of 66 files: 33 files showing initial and forecast surface air temperatures (temp) in the region, and 33 files showing initial and forecast air pressure at sea level (slp).

In other words, graphic files in the folder illustrate both the initial conditions (a representation of the actual conditions at that time) for both temperature and air pressure at sea level, and then a series of graphics illustrating Polar WRF's forecasts for changes in the region that are expected to occur over the next 96 hours.

See screenshot of part of the directory of images generated at 00:00:00 UTC on Oct. 29, 2012, as shown on the next page.

More tech-savvy students may want to generate animations of the still images they have selected to illustrate specific dates included in their study.

Index of /PFP/images/2012102900

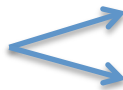
[Name](#) [Last modified](#) [Size](#) [Description](#)



[Parent Directory](#)

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Initial temperature and pressure conditions based on observations & model inputs



[med001_slp.gif](#) 29-Oct-2012 09:59 39K



[med001_temp.gif](#) 29-Oct-2012 09:59 43K



[med002_slp.gif](#) 29-Oct-2012 09:59 39K



[med002_temp.gif](#) 29-Oct-2012 09:59 44K

Temp & SLP forecasts for a period 3 hours from the first set of graphics



[med003_slp.gif](#) 29-Oct-2012 09:59 38K



[med003_temp.gif](#) 29-Oct-2012 09:59 44K



[med004_slp.gif](#) 29-Oct-2012 09:59 38K



[med004_temp.gif](#) 29-Oct-2012 09:59 44K



[med005_slp.gif](#) 29-Oct-2012 09:59 39K



[med005_temp.gif](#) 29-Oct-2012 09:59 44K



[med006_slp.gif](#) 29-Oct-2012 09:59 39K



[med006_temp.gif](#) 29-Oct-2012 09:59 44K



[med007_slp.gif](#) 29-Oct-2012 09:59 38K



[med007_temp.gif](#) 29-Oct-2012 09:59 44K



[med008_slp.gif](#) 29-Oct-2012 09:59 39K

The first file in each folder (med001) represents the model's output for the conditions at 00:00:00 UTC (or 12:00:00 UTC). This graphic represents Polar WRF's description of observed or modeled conditions at that time. In other words, this is Polar WRF's best illustration of the known and modeled conditions on that day at the time of the update. It graphically represents the current weather in the Arctic and northern latitudes for that day and time.

The rest of the files in each folder (med002 through med033) show forecast conditions over the next 96 hours, based on the first image. Eight forecasts are generated for each day of the 4-day forecast period. Therefore, 33 images are found in each folder for temperature and 33 images for sea level pressure.

Once again, the initial conditions are shown in the first image, and images illustrating forecast changes over the next 96 hours, shown in 3-hour increments, are shown in images 002 through 033 in each folder.