# Lab 6 – Interpreting and Making Weather Maps

## By: Jacob Wall

## 4/11/2014

**Lab Procedure**

In this lab we used Unisys to gain a better understanding of how these weather maps are created. We used these maps to generate two hand drawn maps which help us understand how wind patterns are in actuality with a variety of highs and lows across the United States. This helps apply what we have learned in the classroom and demonstrates that not everything is as easy as inward and counterclockwise for the lows and vice versa for the highs. That, with a variety of systems, the winds can be jumbled a bit.

**Observation**

**Approximate Temperature:** 75

**Sky Cover:** Cloudy

**Winds:** South at 14mph

**Precipitation:** No

**Overall Weather:** Cloudy & windy

**Compared to Yesterday:** Yesterday was sunny and warmer.

**Analysis of current conditions**

1. **Using the terminology and principles you have learned this semester in class, in 1-2 sentences describe the weather conditions in Dallas when you made your observations, including temperature, sky cover, and wind speed and direction.**

The weather conditions in Dallas are prime for a noticeable change in temperature and shift in winds as we have a stationary front in Dallas currently. We can expect to see that the weather will be different; with much more cloud cover and winds than currently happening right now.

1. **How long ago did Unisys make these maps, compared to when you walked outside and made your own personal observations of the weather? Do you think they will still be good indications of current and future weather?**

Surface Data Map: 1545 Zulu = 10:45am CST (GMT -5)

Satellite Map: 1630 Zulu = 10:30am CST (GMT -5)

Unisys uses ASOS and AWOS stations at airports to gather data for the surface. For above the surface and to supplement surface data they use weather balloons and satellites to gain a better understanding of our weather and what is to be expected.

1. **Do the weather maps help you understand and explain the current local weather conditions you personally observed? What information on the weather maps supports what you observed, and what information on the weather maps seems to disagree with what you observed?**

Weather maps help us understand and explain local weather by visualizing the conditions and what’s happening around us. The surface map gives us a better understanding of our weather by clarifying that the rapid change in weather is due to the stationary front around us. We can also see what else is to be expected by the highs and lows around the country as well as the general direction of which they’re heading and the intensity/size. I was unable to find any information on the map that disagrees with what I observed.

1. **Based on what you remember the weather was like this morning and yesterday, how has the weather changed over the last 12, 24, and 36 hours? Can you explain the change or lack in change in the weather with the features shown on the maps you printed from Unisys?**

12 Hours Ago = Cloudy and windy

24 Hours Ago = Clear skies but noticeably the wind was picking up

36 Hours Ago = Clear skies and sunny

Considering the stationary front that is over North Texas extending through the Central United States we can expect to see changing weather, of which has happened over the last 36 hours.

1. **How do the parts of the country with high winds compare to the regions of the "Pres" map where the pressure lines (the isobars) are close to each other? (Analysis Question)**

Areas with closer isobars are found to have higher wind speeds across the nation. Where there was a high-pressure system in the Atlantic Ocean I found it odd to find that there were such high winds, despite the low friction that water has.

1. **How do the parts of the country with low winds compare to the regions of the "Pres" map where the pressure lines (the isobars) are far apart and broad? (Analysis Question)**

Areas with generally more spaced out isobars are found to have lower wind speeds. Often these areas were found to have wind speeds below 10mph.

1. **Are the actual winds today behaving as the "typical" winds usually do around highs and lows? Explain what the winds “typical” patterns are, and how the winds today compare specifically.**

The winds today are typical with the winds being inward and counterclockwise for the low and the opposite for the high. When looking at the map I drew it’s hard to see this because we only labeled the most dominant low and high. There is another low-pressure system above the low that “distorts” my map but if you look at the actual surface wind stream map and lay on top of that the surface map you can see that the winds are behaving as expected.