

Look at the atmospheric data (pressure, temperature, relative humidity, and etc.) reported at the Laramie airport:

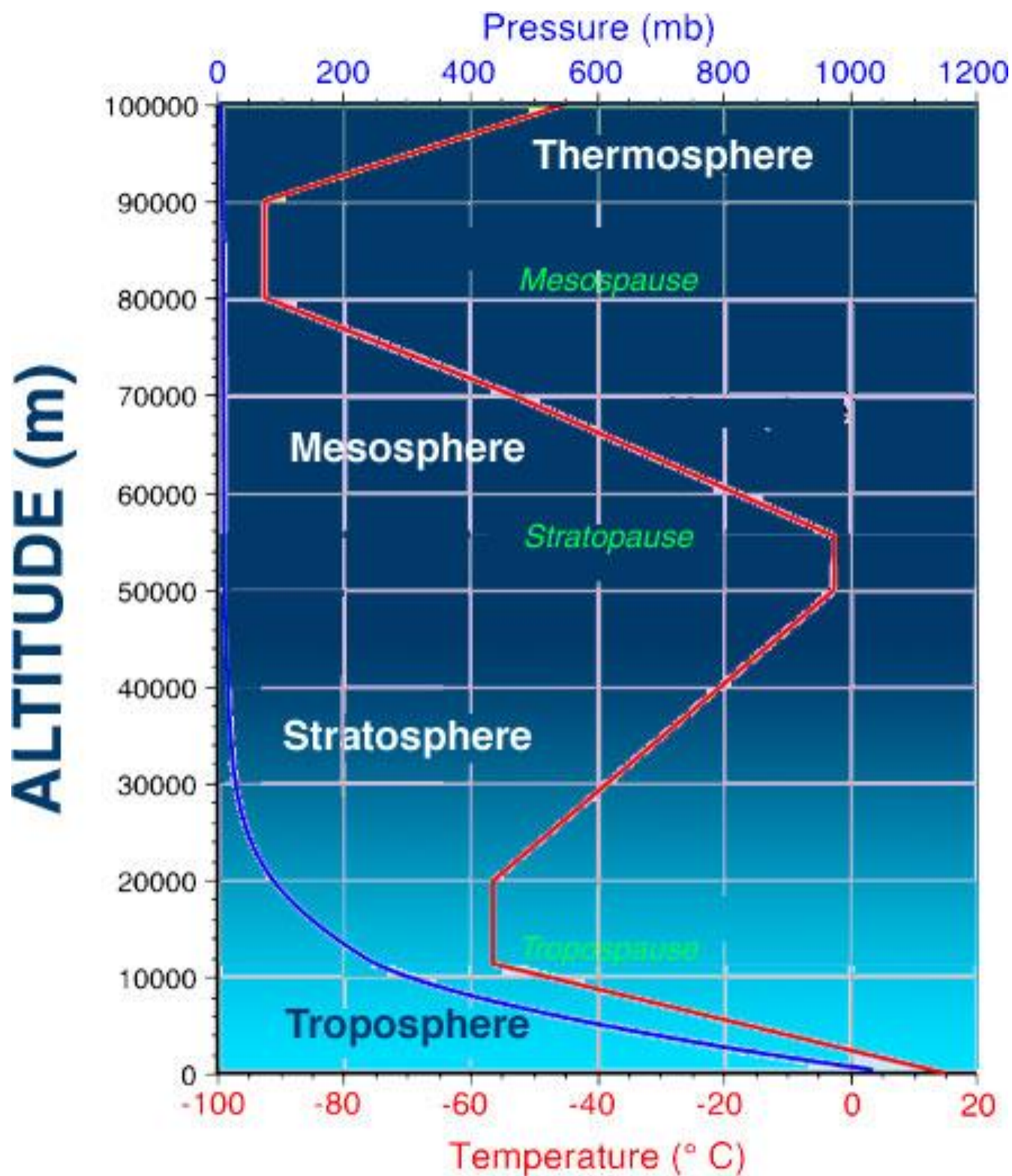
<http://weather.uwyo.edu/cities/>

Click on “metric”

What you see, under “ALTM”, is a virtual pressure at sea level. What to do if you are interested in the actual pressure measurement in Laramie?

Use this spread sheet:

[http://www-das.uwyo.edu/~jsnider/atasc4010/altimeter\\_setting\\_to\\_station\\_pressure.xls](http://www-das.uwyo.edu/~jsnider/atasc4010/altimeter_setting_to_station_pressure.xls)



[http://geography.uoregon.edu/envchange/clim\\_animations/gifs/mslpwinds\\_web.gif](http://geography.uoregon.edu/envchange/clim_animations/gifs/mslpwinds_web.gif)

See if you can observe the following:

- 1) The change in pressure, horizontally, from the lowest low, the highest high is about 30 millibar (also known as 30 hPa). This is equivalent to a height change, vertically, of about 300 meter. We conclude that horizontal variations of pressure (weather) are relatively small in comparison to the pressure change in the vertical.
- 2) Watch the “High” form off the California coast, in late spring, “intensify” into July (the pressure at the center of the California High becomes larger).
- 3) An analog of the California High can be seen in the southeastern Pacific Ocean. However, the increase in pressure intensity occurs during their spring (~October).
- 4) The sense of the circulation around the California High is clockwise, and the sense of the circulation around the Chilean High is counterclockwise
- 3) Watch the Aleutian Low, and the Icelandic Low, intensify into the winter season. In the case of a “Low”, the verb “intensify” implies that the center pressure becomes smaller.
- 5) Note that the sense of the circulation around a low in the northern hemisphere is counterclockwise.



