Timeline Assignment

PART 1:(due Weds, January 18th, 2017) Create a weather timeline for the week of January 11-17, 2017. You should create this timeline following our class guidelines below. The purpose of this assignment is to start tracking the weather in order to correlate it to snowpack conditions, as well as to learn where to find this information and how to use these resources. Please complete your timeline carefully; you will be graded for tidiness and precision.

PART 2: We will divide up into small groups. Each group will be responsible for completing the timeline for one week of the semester, starting January 22nd.

Data Retrieval:
Make sure you have axes clearly marked and labeled with LEGENDS (ask me or and geography majors what this means).
If a weather station is not reporting data for a period of time, leave that day blank and make a note that data is missing. If you have a half day of data, you can report that data but include a note

Section 1: High and Low Temperatures
- Celsius
- High and Low temperatures for the 24 hour period (midnight to midnight)
- From the Collins mid-mountain weather station **CLN** (link on class website)
     - This link will take you to current weather conditions.
     - First click "change to metric units" on the left of screen
     - To change to archived data, click "Change date/time" and choose the day that you want. Pay attention to what TIME you choose. I usually choose a time starting from 2300 hours but play around with this to find what works best.

Section 2: Wind
-MPH
-Average wind speed, trend of wind direction, and the max gust for 24hour period (midnight to midnight)
-From the Mt. Baldy ridge top weather station **AMB** (link on class website)
     -This link will take you to current weather conditions.
- If AMB weather station is not reporting, you can use the wind information from the hidden peak weather station **HDP** (link on class website)
- To find average wind speed:
     -Use the "download data" link to automatically put this data in an Excel spreadsheet (to download more than one day of data, you will need to create a Mesowest account, which is free)
- Once in Excel, click an adjacent cell, type "=average" to get a list of functions, and select "average". Then highlight the cells you want to average using the shift key, and press enter.

- Alternatively, stay in the "change data/time" area, add up all the hourly wind speed average values and divide by the amount of numbers you added.
- To find the trend of the wind direction
    - Look at the list of wind directions (i.e. SW or NNW) and decide which one happened most often. This part is somewhat subjective

-To find the max gust
    -Using the "change Data/Time" link, the max gust will be noted at the top of each day of data.

Section 3: Precipitation
-Centimeters
-From the Collins mid-mountain weather station CLN (link on class website)
    - This link will take you to current weather conditions.
    - First click on "change to Metric Units"
    - To change to archived data, click "Change date/time" and choose the day that you want. Pay attention to what TIME you choose. I usually choose a time starting from 2300 hours but play around with this to find what works best.

Total Snow Depth
    - Appears as a line on the timeline
    - Choose the highest value for the 24 hour period under the " Snow Depth" column

Snow Water Equivalent (SWE)
    - Appears as a filled in bar graph on the timeline
    - At the top of the page, it is the value in the "Precipitation Variable Accumulated" table, under "In 24 Hours"

New Snow Depth
    -Appears as an empty bar graph on the timeline
    -Values from the "Snow Interval" column. Numbers count up from the bottom sequentially. If the number suddenly drops, *it has been reset(* a ski patroller at Alta ski area cleaned the snow off of a storm board). You will need to add these values up for the 24 hour period. Also, if the number at the BOTTOM of the column is higher than zero, you will need to account for the fact that some snow has been accounted for on a different day.
For example: (earlier to later times run from the bottom to the top of column)
Snow Interval
3
3
2
1
1
5
4

4
3

This would be recorded as 3 + (5-3) = 5