

Todays Material:
 GIS update!
 Map Critique Lab 1
 Lab 2

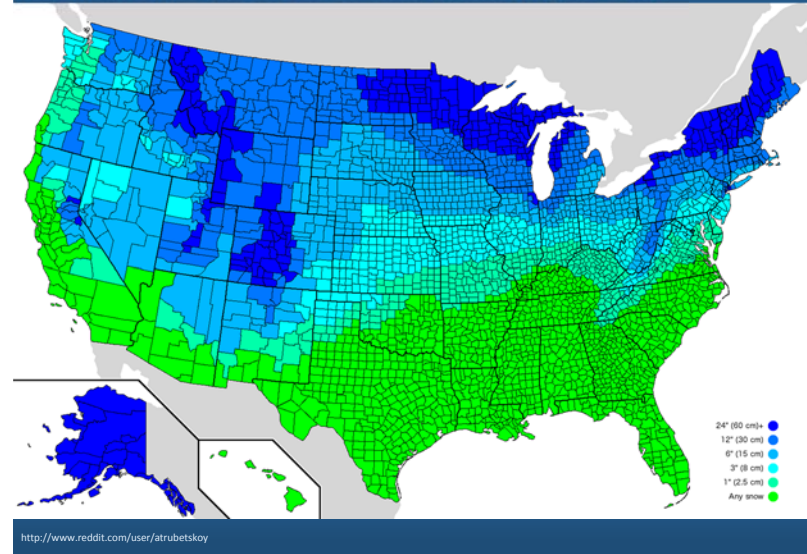
Map of the Internet 1.0



<http://jaysimons.deviantart.com/art/Map-of-the-Internet-1-0-427143215>

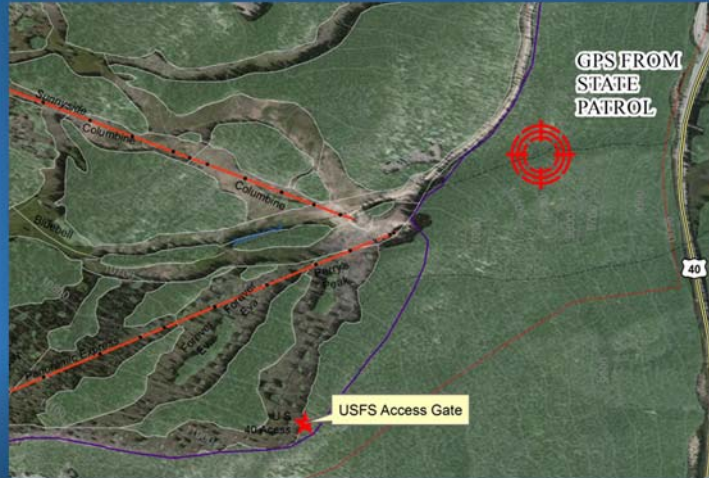


How much snow does it take to cancel school in your area?



<http://www.reddit.com/user/atrubetskoy>

Esri Technology Helps Colorado Ski Resort Conduct Searches



http://www.esri.com/esri-news/arcwatch/0114/go-to-the-rescue?WT.mc_id=EmailCampaign15201

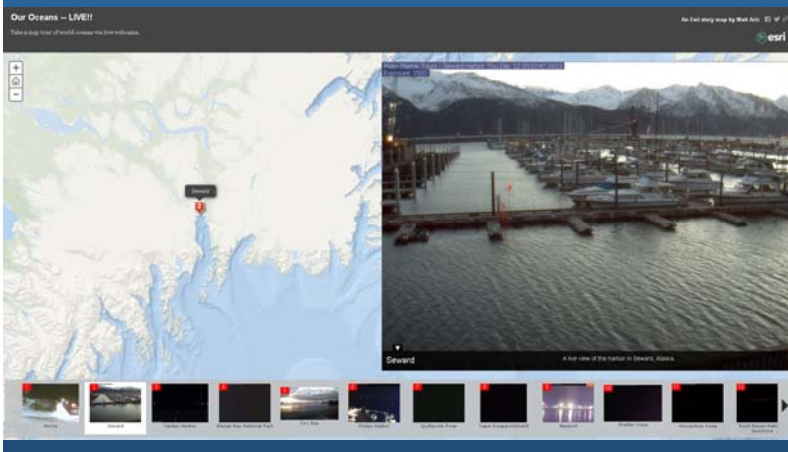
Urban Observatory: Population Density

<http://www.urbanobservatory.org/compare/index.html>

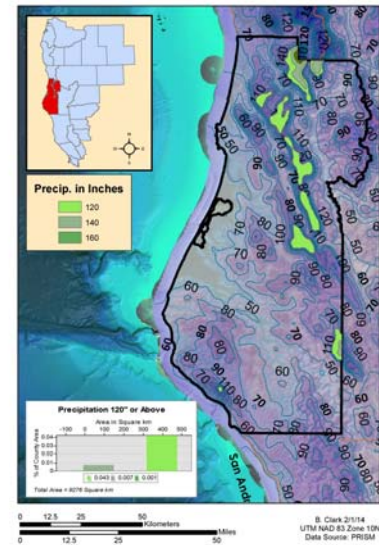


Live Webcams near the Ocean

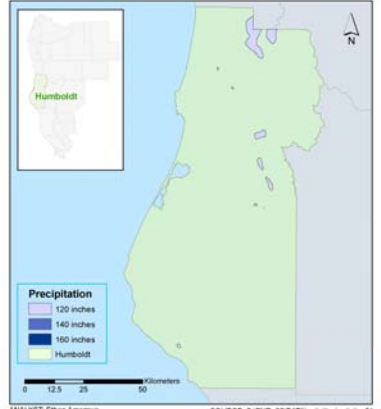
http://esripm.maps.arcgis.com/apps/MapTour/index.html?appid=4c759bcd5204904b0a27342214ce727&webmap=a0ae17dc76364fad98ae7c4324b98c5e&WT.mc_id=EmailCampaign15201



Precipitation 120" or Greater in Humboldt County



Heavy Precipitation Patterns: Humboldt County - 2012

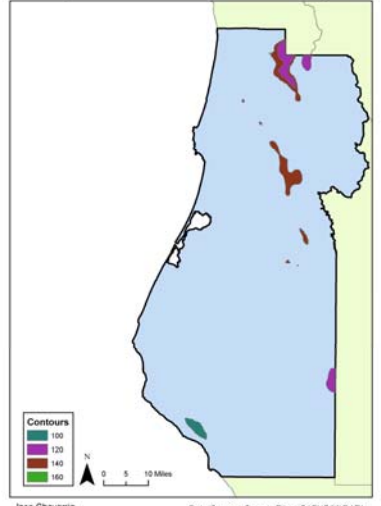


ANALYST Ethan Ameyus
DATE: January 31, 2014
SOURCE: S:\FNR_66\DATA\activities\activity_01
PROJECTION: NAD 1983 UTM Zone 10

Annual PRISM* precipitation data is represented here for Humboldt County. As part of the Pacific Northwest, Humboldt receives some of the Nations highest annual rainfall rates. Regions with records for 120, 140 and 160 inches of precipitation were georeferenced from a raster file (*.prg) using ArcMap.

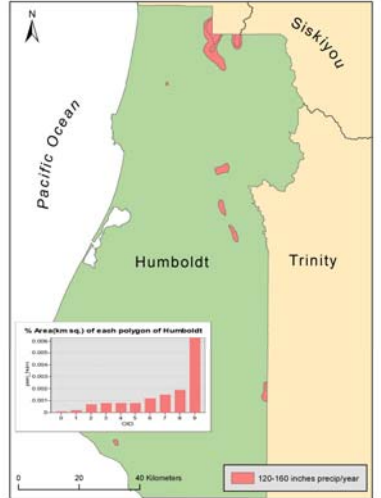
*The PRISM Climate Group gathers climate observations from a wide range of monitoring networks, applies sophisticated quality control measures, and develops spatial climate datasets to reveal short- and long-term climate patterns.

Precipitation Contours in Humboldt County



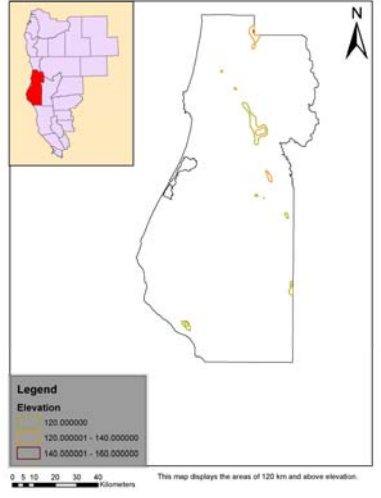
Joe Chavaria
MW: 6 - 8:35 PM
Data Source: Course Files (S:\FNR\66\DATA)
Coordinate System: NAD 1983 UTM Zone 10N

Areas Receiving 120 inches(+) of Percipitation/yr (Humboldt Co.)



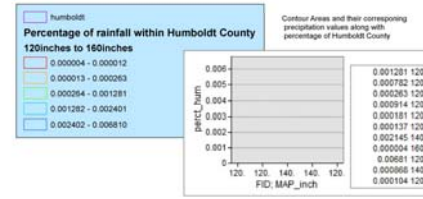
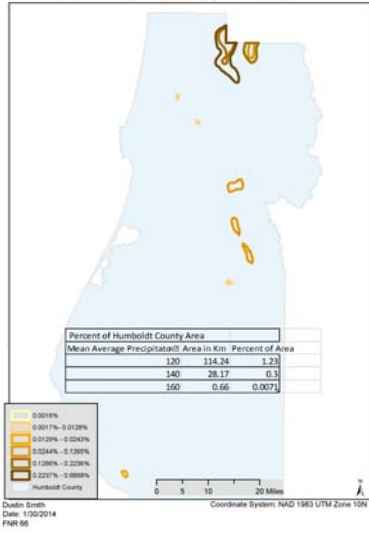
Nick Kelly
FNR 66 MW 6:4:30
Data Source: S:\FNR_66\DATA
Coordinate System: NAD 83 UTM 10N

Elevations for Humboldt County

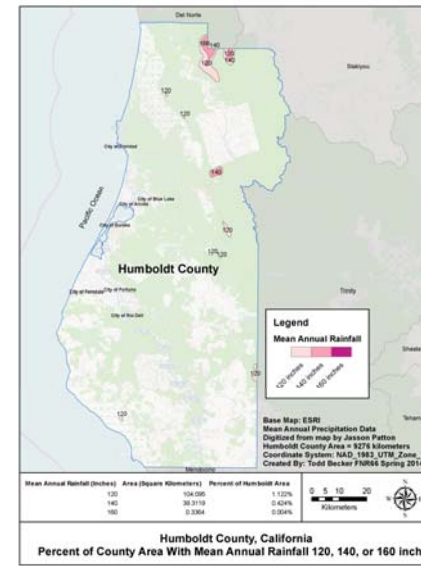


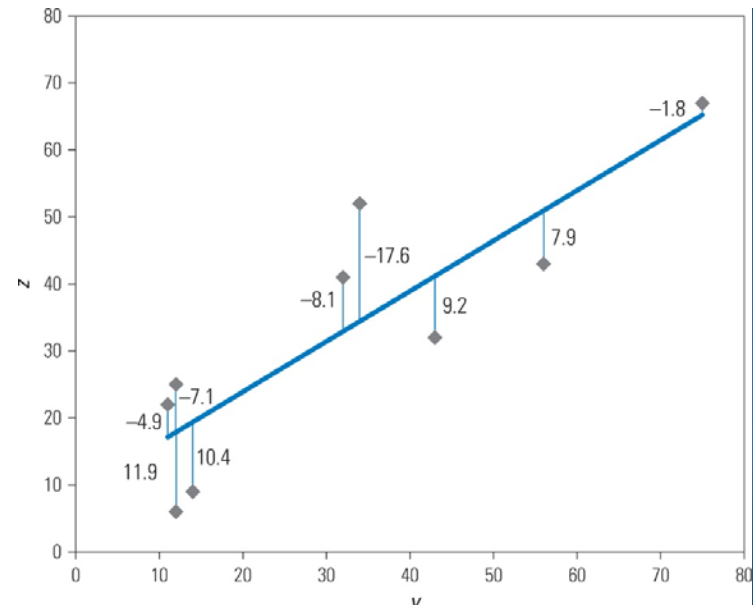
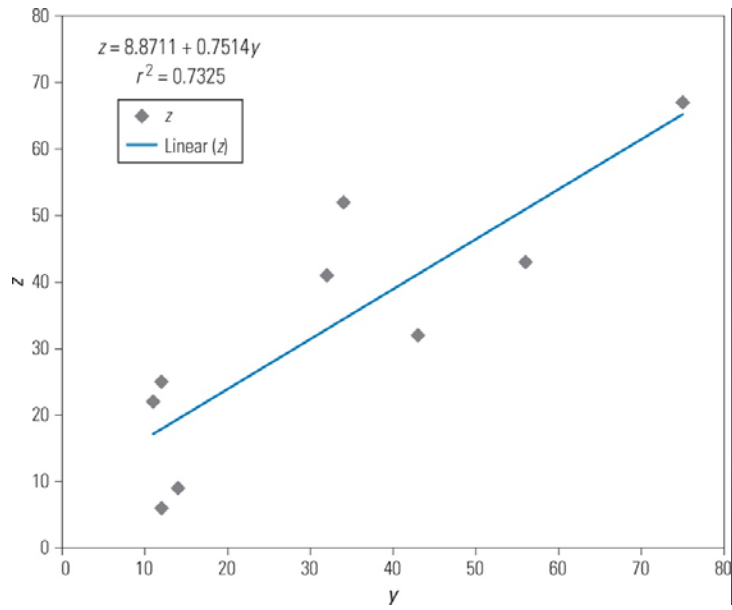
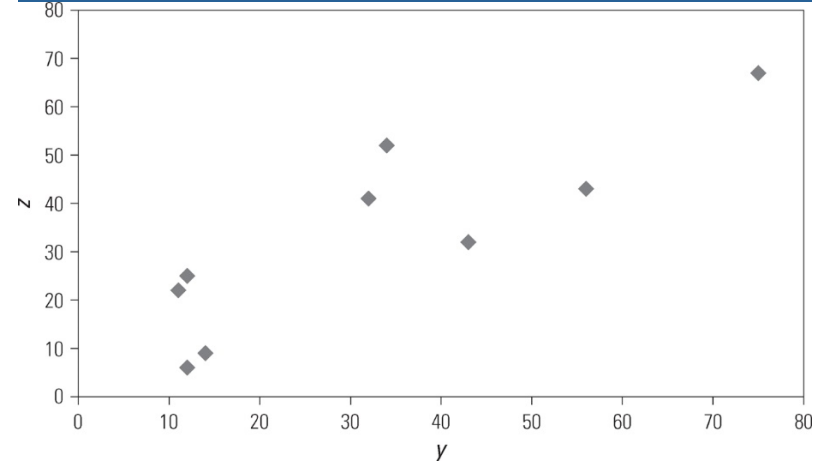
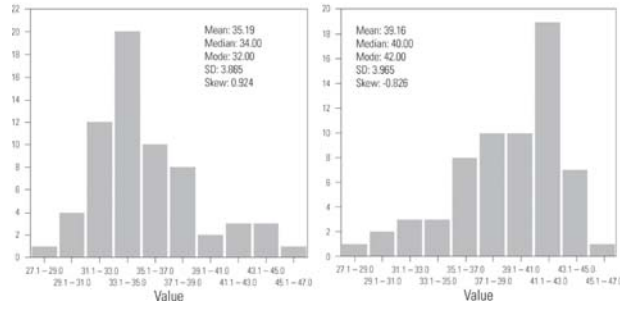
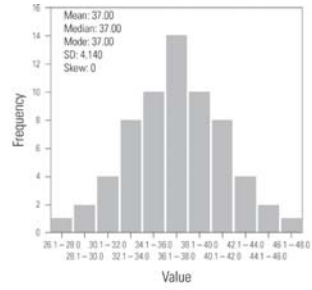
Projection: NAD83_10
Data From: FNR_66\DATA\activities\activity_1
Sponsor: Mitchell
FNR 66

Percent of Mean Average Precipitation



High Precipitation Areas of Humboldt County





**FNR 66
Lab 2**

County Service Copter Site Lab

You have been hired by Humboldt County to recommend four locations as pilot sites for a new community service that will be delivered via RCX quad copters. There are 14 potential locations and the county provides a point shapefile with their positions.

The county lists a few essential constraints for your analysis. The spatial range for the copters is limited to 2 km, constrained by the battery size and the mass of the object they will be delivering. The county would like to know how many people each copter site could serve. They are also interested in the actual cost of energy to power the copter. Their way of evaluating this is to multiply the people in each census block by the distance of that census block to the copter site. The proxy for energy will be called "people distance."

The county would like at least one map that helps them visualize your recommendation. The county would also like to see some graphical plot of these analyses. Finally, the county would like a report that presents your recommendation.

1. set up Mxd file with the following data sets:

- copter_site.shp
- cenb2010_11_1.gdb

2. Create 2 km buffer polygon shapefile, using the /Geoprocessing/Buffer menu item.

- copter_site_buffer_2km.shp

3. Intersect with census block data

- census_copter_intersect.shp

4. use "Near" toolbox to calculate the distance from each polygon to the copter site

(I included location and angle)

Analysis Tools/Proximity/Near

Input Features: "census_copter_intersect.shp"

Near Features: "copter_site.shp"

5. create new fields in the new shapefile

"pop_dist" (float)

"Mean" (long integer)

"Std_dev" (long integer)

6. the field calculator to populate "pop_dist" field

[POP10] * [NEAR_DIST]

7. for each copter site:

Select by attributes (eg "site_name" = "Arcata South")

For "pop_dist" calculate "statistics"

Copy and paste statistics into spreadsheet

Select field "mean" and use the "field calculator" to enter the Mean value for that site.

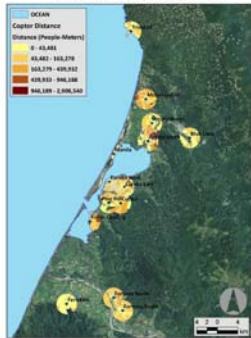
Select field "std_dev" and use the field calculator to enter the standard deviation for that site.

8. Create plots in excel that display some statistical measure of "People Distance" for each site.

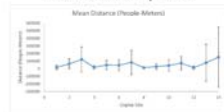
9. Compose a map, or map series that helps one visualize the relative or absolute potential users of the service.

10. Write a paragraph or three about your analyses. Include your recommendation of the best four sites. Use the data to support your recommendation. Make at least one suggestion about how you could make these analyses better, perhaps an additional data set or a different type of analysis. Include all plots, charts, tables, maps(), and report text on one single pdf.

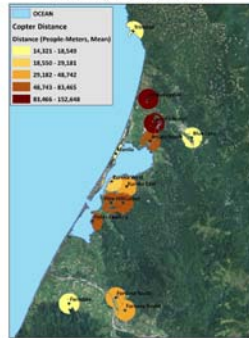
Copter Distance Per Census Block



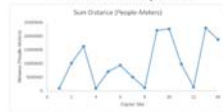
Mean Distance Per Copter Site



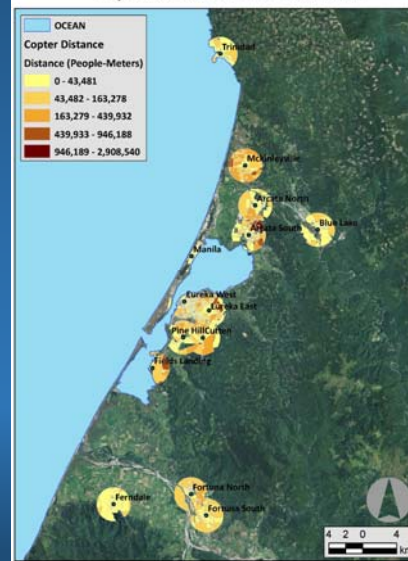
Copter Distance Per Copter Site



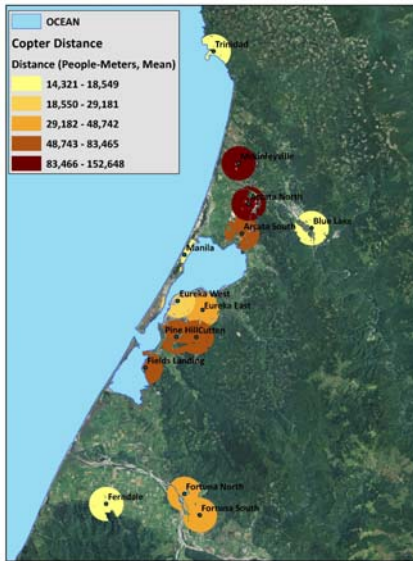
Total Distance Per Copter Site



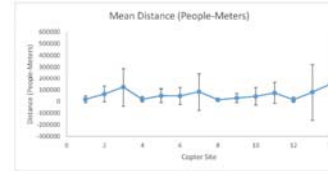
Copter Distance Per Census Block



Copter Distance Per Copter Site



Mean Distance Per Copter Site



Total Distance Per Copter Site

